Textile Industries

COTTON
Textile Industries

Lint cannot accumulate on the ceiling, spinning frames, or in the monitor in this mill—it is equipped with American Mono-Rail automatic cleaners. Manual labor for overhead cleaning is eliminated, with very little needed for cleaning the frames. Let an American MonoRail engineer show you how it can be done in your mill.

THE AMERI[illegible] MONORAIL [illegible]PANY

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BALTIMORE 3, MARYLAND

SERVING INDUSTRY, AGRICULTURE AND PUBLIC HEALTH

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Volume 114 Number 2

Improved Draper repair parts will help you increase your production by reducing loom stoppages and stepping up efficiency.

Ask a Draper salesman to show you the latest improved parts each time he comes around.

AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTA, GA. MAY 8-12, 1950

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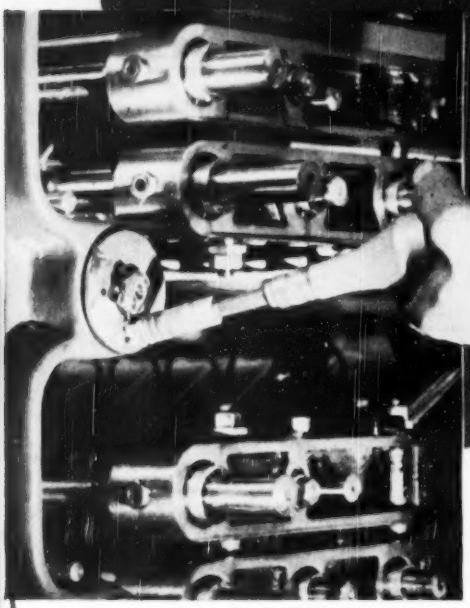

TEXACO REGAL STARFAK assures full protection for anti-friction bearings

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TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

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Textile Industries

Volume 114, Number 2
February, 1950

MODERN PRODUCTION ISSUE

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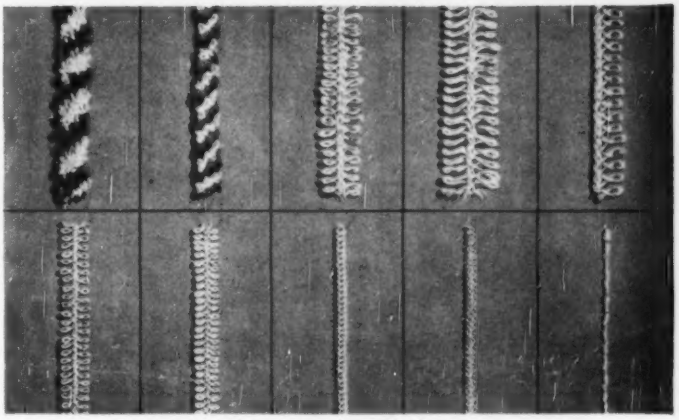
Rayon Reports

New Novelty Yarns Made by Splitting Tricot

Patented Avisco Process Offers Wide Variety of Original Effects

Entirely new and different types of novelty yarns have been created by splitting specially constructed tricot fabrics. This most recent Avisco development, the result of several years of experimentation, makes possible a wide variety of unusual effects unobtainable with conventional novelty twisting machinery. These new types include boucle, ratine and chenille yarns, crepe effects achieved without a turn of twist, and in addition some thick-and-thin and elastic yarns.

Called by the trademark name "Zipknit," these yarns can produce many different kinds of fabrics with a maximum of surface interest and variety of hand. Some are extremely rich and soft—much softer than comparable fabrics made of the standard novelty yarns. Others are rather crisp and even harsh. Random pattern fabrics without a definite repeat are easily achieved.



A few of the Zipknit yarns made possible by the new process.

First successful applications of Zipknit yarns include upholstery and drapery fabrics. They indicate that the future possibilities are almost limitless. Among the many foreseen uses are bathing suits, dress-weight goods and decorations for terry.

A large number of experimental applications for Zipknit yarns are in the process of development. Avisco invites inquiries about the new process, which is being made available to the trade. Address: American Viscose Corporation, Knitting Department, 350 Fifth Avenue, New York 1, N. Y.

RAYON 20 YEARS AGO

NEW YORK, February, 1930—A banner year for rayon is predicted with no price reductions and steadily increasing consumption.

NEW YORK, February, 1930—The style trend toward the long dress for women is being reflected by a gain in yardage sales of rayon fabrics.

WASHINGTON, D. C., February, 1930—The Circuit Court of Appeals has ruled that the word "satin" is the name of a weave and therefore rayon satins can be legally advertised as such.

MAKE USE OF *Avisco* 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

"36% ANNUAL RETURN ON OUR INVESTMENT"

INVESTMENT AMORTIZATION

Entirely written off in 33 months!

(on a 3-shift basis)

Total Equipment Cost

36% liquidated in one year

72% liquidated after two years

100% liquidated in 2 years and 9 months.

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"Frankly when we asked for a Saco-Lowell engineer to survey our mill, I didn't believe it possible that any such important savings could be made. But their report shows that we can, by **SACO-LOWELL**izing, and without losing a single pound of production,

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SAVE ON LABOR (spinning and winding) 47.7%
SAVE ON POWER 24.5%
SAVE ON MAINTENANCE 50%

If we can achieve such results, with an annual return of 36% on our investment . . . in other words, *if we want to stay in business*, we must **SACO-LOWELL**ize!"

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And it absorbs from 60% to 85% of transmitted noise and vibration . . . saves floors, building, machinery . . . often permits higher machine speed.

You'll want all the facts handy the next time you move a machine, or add a new machine — *or a new plant* — to your operation.

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Gentlemen:

Please send my free copy of "Why It Pays to Anchor Your Textile Machinery with UNISORB."

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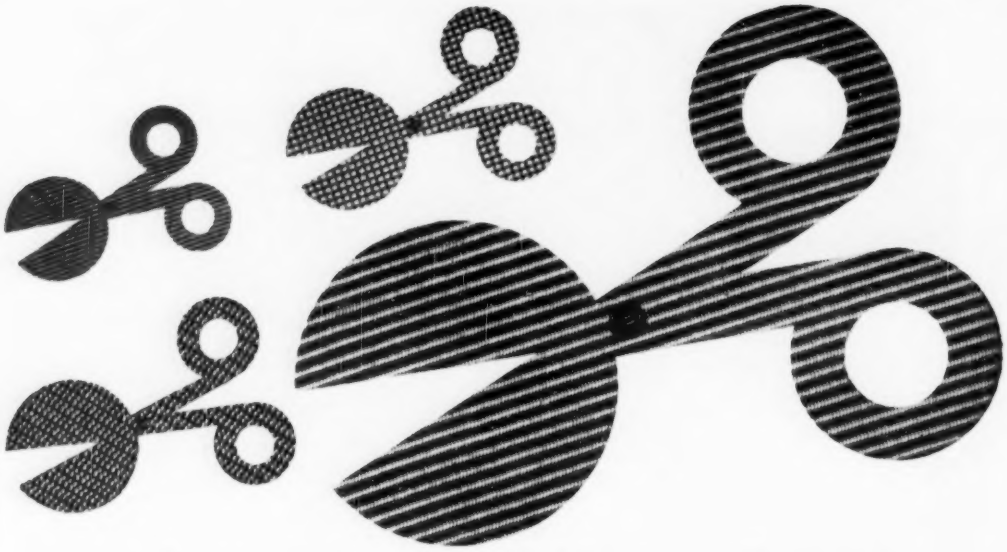
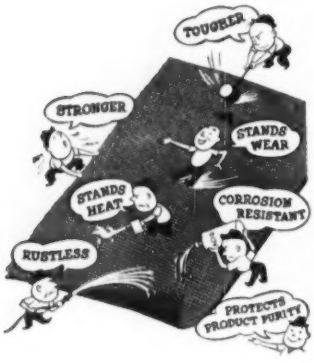


This Screen and Filter Cloth may help you cut costs!



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For this long-lasting wire cloth is not expensive. Its prices are comparable to what you are now paying for cloth of less durable metal. *Fine weaves of Monel and Nickel often cost less!*

Add the lower initial cost to the greater service life of the "task metals" and you can readily see the two-fold saving possible.

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All weaves and meshes are available for your particular filtering screening or conveying needs.

And it's easy to braze, solder or weld. You're sure to get strong joints that do not deteriorate in service.

Monel® Nickel Inconel®

"Task Metals" for Industry

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Investigate *the "task metals" next time you order wire cloth. Any quality weaver will be glad to recommend types and quote prices. For booklet,* "ESTABLISHED WEAVERS," *write to our Frank Bailey.*

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Your Savings are **AUTOMATIC**

This installation shows a battery of 6 combination Beam and Package Dyeing Machines.

With Gaston County's **AUTOMATICALLY CONTROLLED** *dyeing Machines*

Gaston County's modern, fully automatic Combination Dyeing Machines introduce many improvements for better, faster, more economical dyeing. Their flexibility, ease of operation, and all-round convenience make them a sound choice for the varied requirements of the textile industry.

FLEXIBILITY—with a simple change of material carriers—cones, beams, tubes, roving, raw stock, and Barber-Colman cheeses can ALL be dyed in the Combination Beam and Package Machine.

POSITIVE CONTROL—from the loading to the unloading of the kiers, every phase of the dyeing operation is under positive control. Less skilled help is required because all machines are equipped with automatic temperature controls — automatic dye liquor flow reversing mechanism—patented two-way running wash system—and dye liquor flow controls.

ACCURACY IN MATCHING COLORS — Robot DYEMASTER Controls provide permanent records for matching colors quickly and perfectly.

CAPACITY—Machines available in single or multiple kier set-ups, ranging from 1 to 2,000 pound units.

We also build complete Extracting and Drying Equipment, and "automatically controlled" Package Dyeing Machines, Raw Stock Dyeing Machines, and Sample Dyeing Machines.

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The Rudel Machine Co., Ltd.
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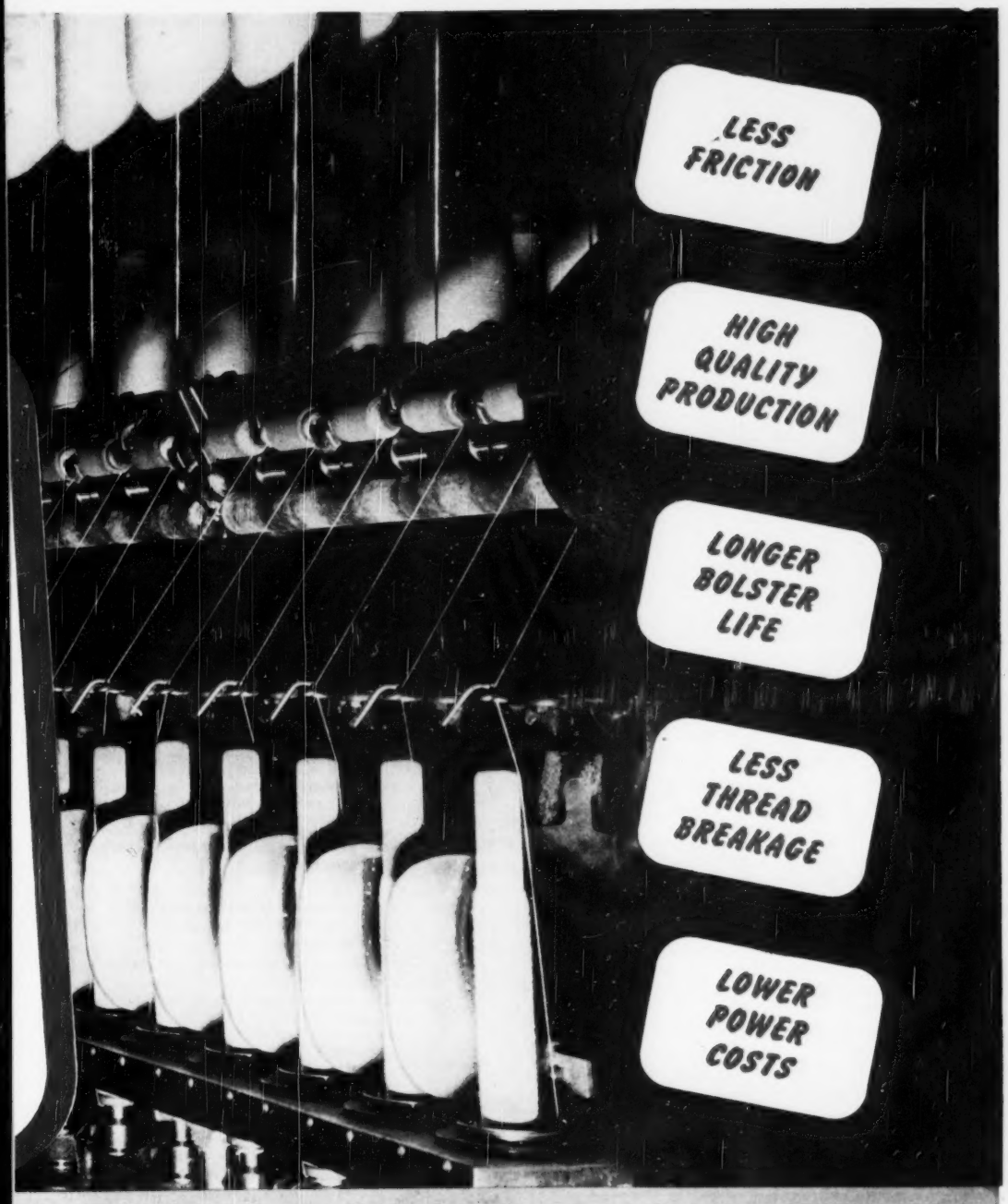
Save Wear and Power with Sinclair Lily White Oils

Mill records show bolster wear may be cut as much as two-thirds by using Sinclair Lily White Oils. This is an important saving. For not only does less bolster wear mean less spindle wobble and fewer replacements but, even more important, it signifies less spindle frictional drag.

The drag saved on each spindle might seem trifling. But multiplied by the large number of spindles in your mill, it adds up to a big saving in power load and cost.

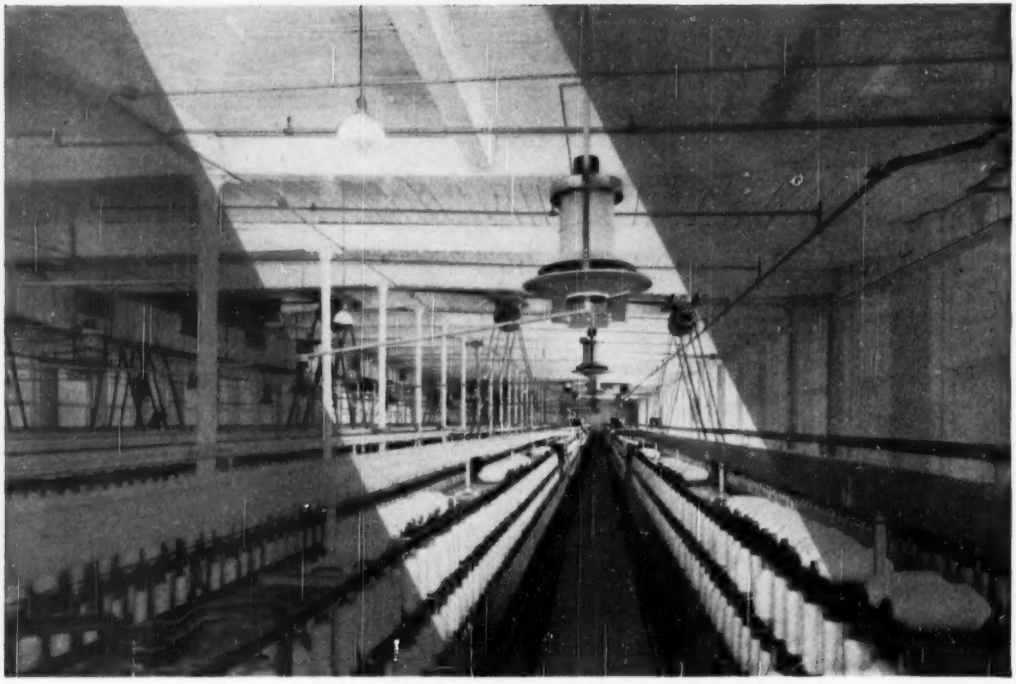
Improved Sinclair Lily White Oils, AX, BX, and CX are specially compounded for low friction loss and reduced power demand. They wash out readily. They are also effective rust preventives. To save wear and power, use Sinclair Lily White Oils.

SINCLAIR TEXTILE



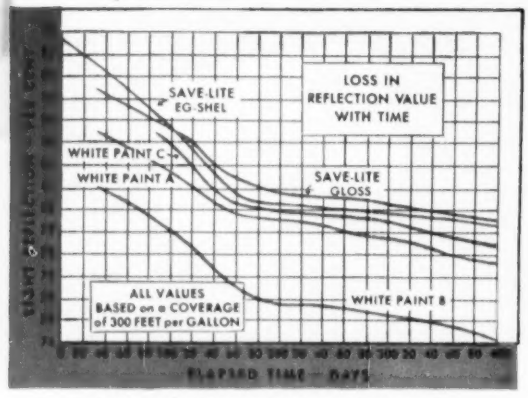
LUBRICANTS

Your nearest supplier of Sinclair products will gladly arrange for lubrication counsel, or write to Sinclair Refining Company, 630 Fifth Avenue, New York 20, N. Y.



PAINT AWAY DARKNESS with

KEM SAVE-LITE® ...the WHITER MILL WHITE!



SAVE-LITE STAYS WHITE LONGER!

Note how Save-Lite retains its reflective qualities, or whiteness, longer than any of the other typical interior white finishes used in this test. Similar tests with the same finishes show Save-Lite to have better opacity and higher initial whiteness as well.

To insure better seeing conditions for your people—longer—look for these things when you buy a Mill White Finish:

1. **High light reflecting power**—the percentage of light reflected by the paint is a measure of its whiteness.

2. **Ability to remain white indefinitely**—you are buying whiteness—will the paint that you apply *stay* white?

3. **Covering capacity**—it takes a paint with maximum hiding power to supply maximum light reflectance at lowest cost per unit area.

4. **Durability**—the paint you put on now will be the foundation when painting schedules again call for refinishing. Make sure that foundation is as sound 5 to 10 years from now as it is today!

Sherwin-Williams Save-Lite Finishes provide a complete line of brilliantly *whiter* interior finishes because all of these factors are accurately controlled. Save-Lite not only gives greater coverage per gallon and higher light reflectance but it retains its whiteness and reflective qualities longer (see chart). These facts are borne out not only in laboratory tests but in year-after-year experience in leading textile mills the country over.

Before selecting your interior finishes, let a Sherwin-Williams representative demonstrate the advantages of Sherwin-Williams Kem Save-Lite—the *whiter* White! The Sherwin-Williams Co., Cleveland 1, Ohio.

SHERWIN-WILLIAMS
INDUSTRIAL MAINTENANCE FINISHES

SAVE-LITE MILL WHITE • COLOR HARMONY FINISHES
MILL VILLAGE PAINTS

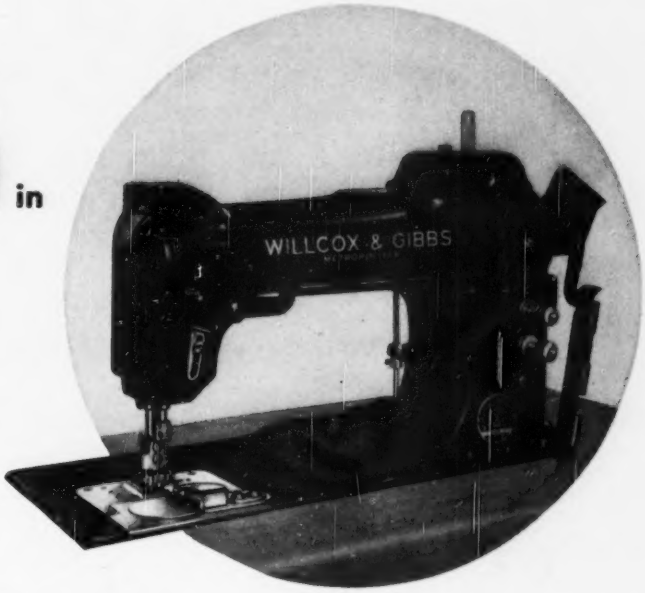
Now you can get

a NEW HIGH in

- **Speed**
- **Precision**
- **Accuracy**

and

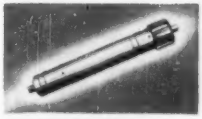
- **Economy**



with this NEW "W&G" Type 1101 Flat-bed Seaming Machine!

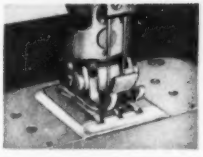
HERE ARE JUST A FEW OF THE OUTSTANDING FEATURES OF THE NEW TYPE 1101

ARM SHAFT — completely encased in a rigidly constructed, perfectly balanced eccentric sleeve bearing assembly. No cranks — no connections. Assures smooth, quiet, vibration-free operation.



SINGLE HAND WHEEL — for added safety, simpler threading, starting and stopping. The combined hand wheel and sheave pulley, with readily removable belt guard, can be used with either round or "V" type belt.

COMPENSATING FOOT—with flexible heel and toe "walks" easily over bulky cross seams. *Yielding* sides permit instant change from light to medium-weight fabrics, without adjustment or interchange of parts.



LUBRICATION SYSTEM — semi-automatic in principle, but fully automatic when machine is running. Reservoir, with built-in level indicator, feeds *filtered oil* to each bearing by capillary action. No manual oiling needed.

Here's a radically improved machine that can help you produce top quality garments faster, easier, and at lower overall cost.

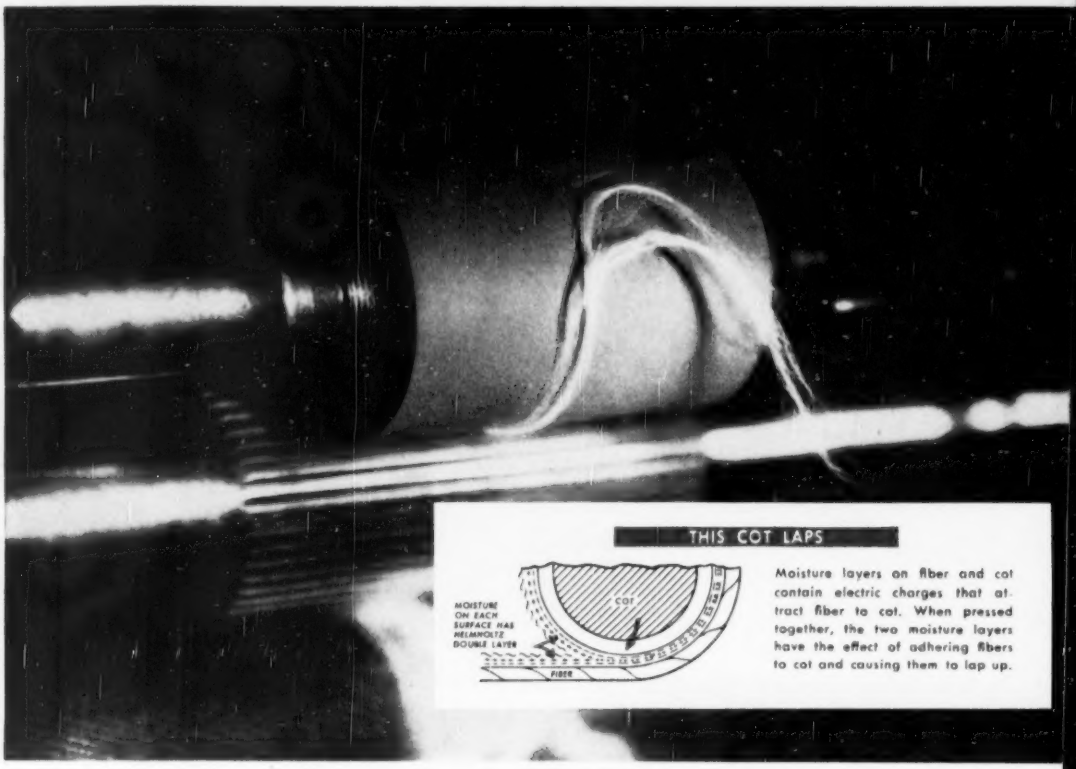
The "W&G" Type 1101 is one of the *fastest* machines of its type ever devised. And like *all* "W&G" machines, it is built with the precision of a fine watch — permitting more accurate and dependable stitching, at sustained high production rates, with *less time out* for maintenance or adjustment.

The 1101 is a two-needle machine, producing two rows of U. S. Standard Stitch Type 401 for sleeve-setting or lap seam felling operations on any garment made of light or medium-weight material. Both needles are *in line*, assuring even starting and finishing, and accurate margin control. Stitches range from 8 to 20 per inch; easily adjustable without loss of time.

For the *complete story*, send for your copy of Bulletin No. 936.

WILLCOX & GIBBS
Sewing Machine Co.

214 West 39th St., New York 18, N.Y.


THIS COT LAPS
MOISTURE ON EACH SURFACE HAS HELMHOLTZ DOUBLE LAYER
COT
FIBER
Moisture layers on fiber and cot contain electric charges that attract fiber to cot. When pressed together, the two moisture layers have the effect of adhering fibers to cot and causing them to lap up.

These action photos were taken at 1/250,000 second while cots were running 300 revolutions per minute.

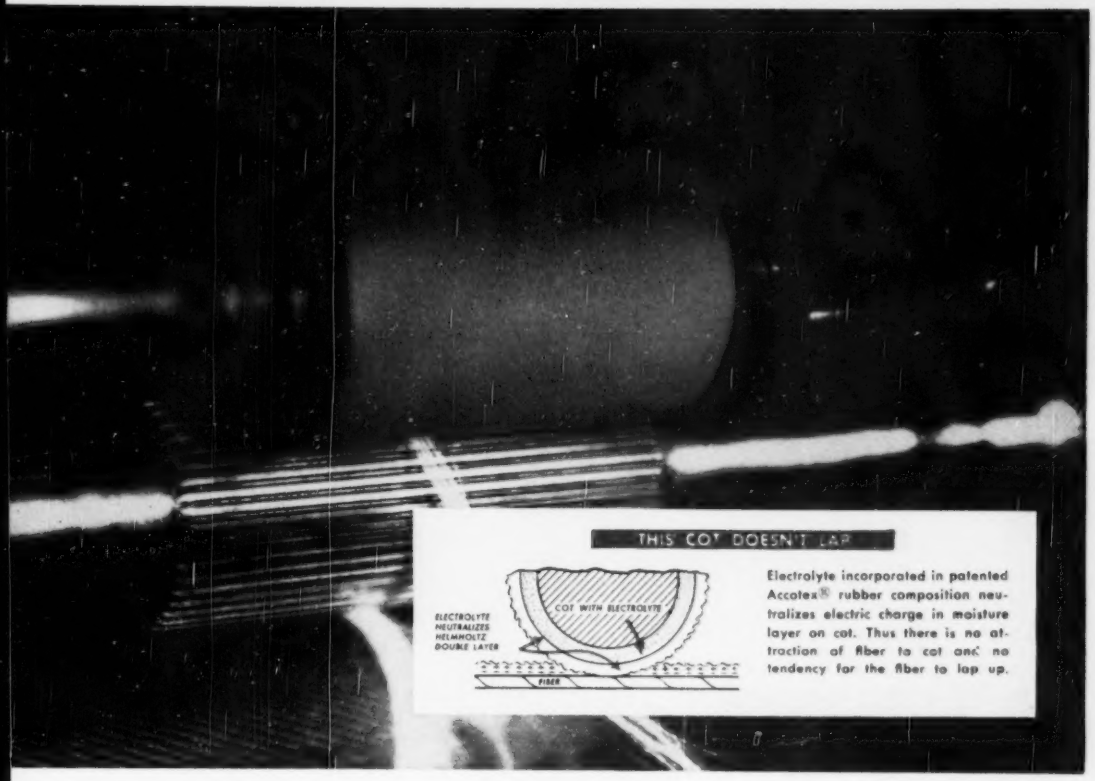
Accotex Cots eliminate

Armstrong's general purpose roll covering . . . NC-727 Accotex

Like all Accotex Cots, NC-727 contains electrolytes to reduce lapping. Made of a cork-loaded synthetic rubber, NC-727 also combines the eyebrow resistance and high friction of cork with the long life of rubber.

Whether you're spinning cotton, wool, or synthetics, Armstrong can supply you with a roll cover specially formulated for the job. Call your Armstrong representative and have him arrange a test installation of Armstrong's Roll Covers that are best suited for your mill.

ACCOTEX COTS
CORK COTS


THIS COT DOESN'T LAP
ELECTROLYTE NEUTRALIZES HELMHOLTZ DOUBLE LAYER
COT WITH ELECTROLYTE
FIBER
Electrolyte incorporated in patented Accotex® rubber composition neutralizes electric charge in moisture layer on cot. Thus there is no attraction of fiber to cot and no tendency for the fiber to lap up.

basic cause of lapping

Armstrong's Accotex Cots eliminate the basic cause of lapping—an electric attraction between cot and fiber. Just how electrolytes provide this patented Accotex® feature is illustrated in the photographs and diagrams shown above.

But more important than laboratory tests and explanations is the performance record of Accotex Cots. Actual service on thousands of frames has shown that broken ends don't tend to adhere to Accotex Cots. Hence lapping is virtually eliminated.

In addition, Accotex Cots give you months of front line service without perceptible wear. With most yarns you'll get a total of five to six years of top-quality spinning from these covers. An occasional buffing keeps these cots running like new.

In mills where lapping is a very severe problem, J-490 Accotex Cots are recommended. They combine surface smoothness with electrolytes to further inhibit lapping. For minimum eyebrowing in a synthetic cot plus good lap resistance, see the NC-727 Accotex Cot described at left.

For full information on Accotex Cots, call your Armstrong representative today. Or write Armstrong Cork Company, Textile Products Department, 3602 Arch Street, Lancaster, Pennsylvania. Available for export.

ARMSTRONG'S ACCOTEX COTS

SPECIALISTS IN DEXTRINIZATION AND BLENDING OF TAPIOCA, POTATO, CORN AND ALL STARCH PRODUCTS....

How to Get the ONE BEST Dextrine or Starch Product!

ONE OF SIX MORNINGSTAR LABORATORIES

MORNINGSTAR has developed Textile Dextrine and Starch Products to the highest known standards of performance! Skilled chemists, thru years of continuous research, have achieved a degree of uniform excellence in *all* Morningstar Dextrine and Starch Products, unapproached in the history of the industry.

Modern, scientific laboratory facilities and techniques have been established not only to *improve* but to maintain absolute *control* of quality. Now you can depend upon each succeeding shipment containing the same, fine uniform characteristics. Don't guess. Don't take chances on the Dextrines you use. Morningstar *Scientific* Dextrine and Starch Product Service can give you valuable aid. Tell us about your needs. Let our laboratory staff determine the one best formula for your specific requirements. Call our nearest field man or write us today.

The PAISLEY PRODUCTS Division of Morningstar, Nicol, Inc. is prepared to give you quick, efficient service on all Morningstar products. *Consult your telephone red book.* PAISLEY maintains sales and service organizations in most principal cities.

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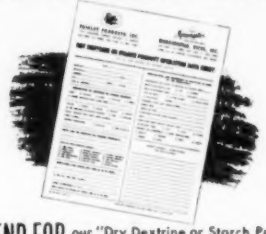

SEND FOR our "Dry Dextrine or Starch Product Operation Data Sheet." *Fill in and return it promptly. Our laboratory staff will gladly study your requirements and promptly recommend the one best and most economical formula to improve the specific operation you describe. This valuable laboratory service does not cost you one penny! Take advantage of it NOW!*

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Franklin Process

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The slight extra cost for these loom proven bearings is soon paid for by the economies they effect in operation and the higher quality cloth which results. Ask us to furnish you with reasons why Hyatts are worth what you pay for them many times over. Write to

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AUSPICES OF AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950 TEXTILE MACHINERY MANUFACTURERS

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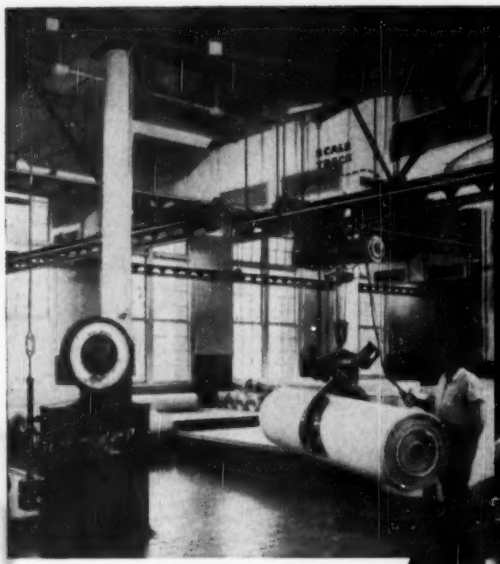
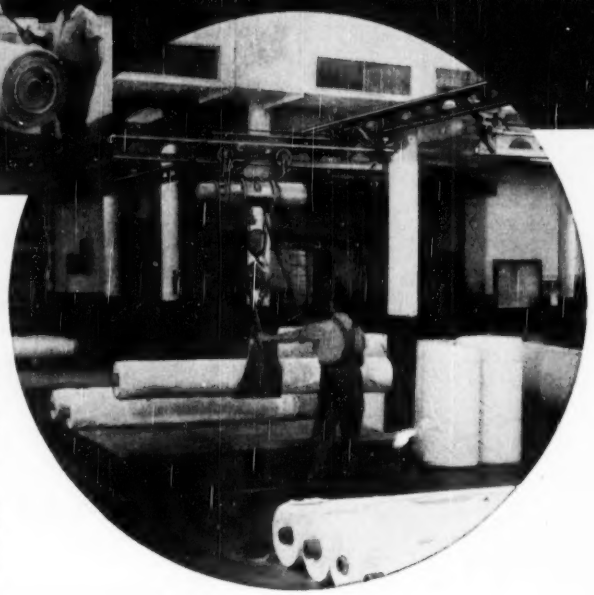
American Card Clothing Co. (Woolen Div.)

Fall River°†‡ Worcester°‡ Philadelphia°†‡ Atlanta†‡ Greenville°†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)

Factory° Repair Shop† Distributing Point‡



Faster, Easier Handling in CLOTH ROOMS



LONG, heavy, unwieldy rolls of cloth are easily handled to and from storage and inspection machines via the overhead Cleveland Tramrail route.

The smooth rolling carriers and transfer bridges are easily pushed by hand. The heavy lifting is done with electric hoists. The bridges interlock together, permitting a carrier to deliver its load directly to any point served by one bridge to any point served by another.

Along the route a scale track section can be provided for quickly weighing the rolls while supported by the carriers. The scale track section is connected by a lever arrangement to a scale which accurately indicates the weight.

Hand-propelled and motor-driven equipment, as well as automatic dispatch Cleveland Tramrail systems are now serving cloth rooms of many mills. We invite your inquiry for textile materials handling problems of any kind.

The use of Cleveland Tramrail has grown rapidly and become widespread in the Textile Industry. In textile mills of all kinds and sizes it is lifting and conveying cotton, wool, rayon, nylon and silk in every stage of preparation wherever the weight is more than one man can handle.

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THE CLEVELAND CRANE & ENGINEERING CO.
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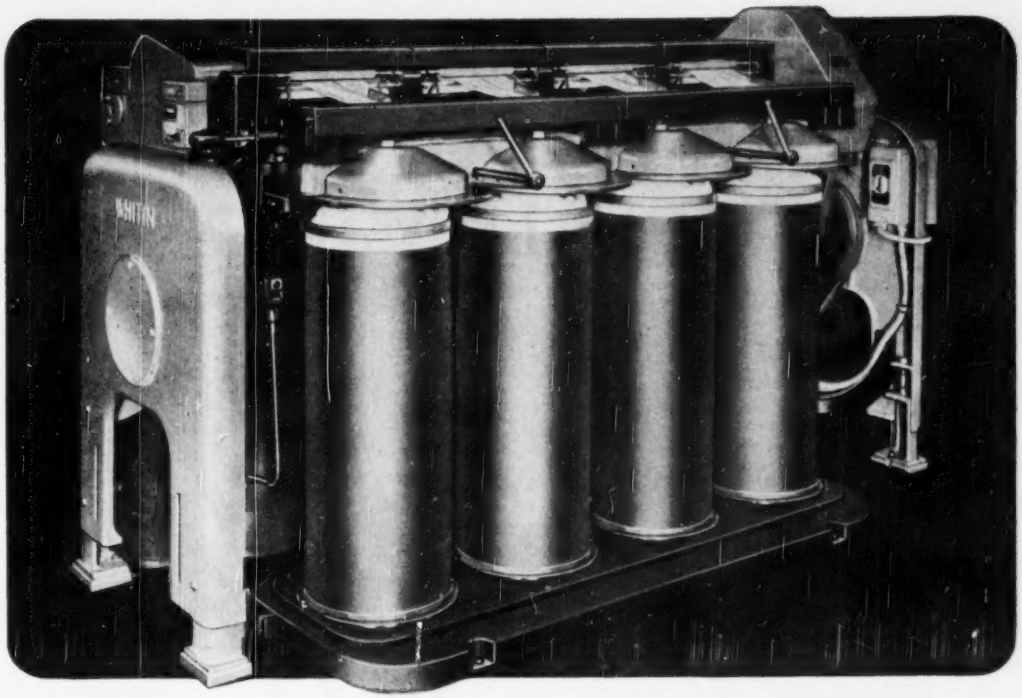
CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT



WHITIN announces the New "P2E" Drawing Frame

. . . the Ideal Running Mate for your Model "J" Comber

The new Whitin "P2E" 14" Bicoil Drawing frame was a natural development following the recent introduction of our Model "J" Comber with its 14" coiler.

Although this machine makes an ideal running mate for the Model "J" Comber, it has many new features which will result in more profitable production and better quality in either combed or carded yarn mills using conventional equipment.

Compared to *conventional drawing*, some of its more important features and advantages are:

DOUBLE PRODUCTION at each delivery.
FLOOR SPACE REQUIREMENTS REDUCED by 50%.
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LOW DRAFTS — an advantage on heavy bulk.
NEW ELECTRONIC STOP MOTION provides quieter operation and eliminates spark or shock hazards.
WIDE ADJUSTABLE ROLL STANDS — will take up to 2" staple.
SPIRAL GEARING in both head and foot ends reduces back-lash and produces more even and more uniform sliver.

AUSPICES OF NATIONAL TEXTILE ASSOCIATION — AMERICAN TEXTILE MACHINERY EXHIBITION — MAY 8-12, 1950 — TEXTILE MACHINERY MANUFACTURERS INSTITUTE

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C.

WICACO QUALITY Since 1868

This Is Our 82nd Anniversary

SPINDLE OILING MACHINE

THE Wicaco Spindle Oiling Machine guarantees proper lubrication for Twisting Spindles, reducing operating costs and giving them longer life. It flushes out the old oil and replaces it with fresh oil in one simple operation. It saves time, labor and power, and guarantees proper oil level at all times.

This efficient machine is used successfully in many mills producing Wool, Cotton, Silk and Rayon. Many textile mills where one was installed have bought additional machines to completely service all their spindles. Order yours today, or send for descriptive folder NOW.

ROLLER BEARING SPINDLES

WE manufacture Textile Spindles of all descriptions for Rayon, Silk, Wool and Cotton. We first introduced Roller Bearing Spindles to the Textile Industry in 1935, incorporating the SKF Roller Bearing type of bolster. Since then we have designed and manufactured many types of spindles for the Textile Industry.

Replace your present spindles, regardless of type, with efficient Wicaco Roller Bearing Spindles to reduce operating costs and increase production. We will design them to meet your particular requirements. Write today for quotations.

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Our ENGINEERING DEPARTMENT invites you to consult with them on any problem.

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fabrics that make fashions are finished with

Cyanamid Textile Chemicals

For the softness, suppleness, good dye affinity and many other characteristics that keep fabrics moving from mill to market, specify Cyanamid Textile Chemicals.

Some will simplify and accelerate your processes; others will simplify and accelerate your sales.

A complete line is available, all quality-controlled.

So for *penetrants, softeners, finishes, sizing compounds, wetting agents* and other specialties and heavy chemicals that will make your processes easier, your fabrics better, call on Cyanamid

Cyanamid's Textile Chemicals include:
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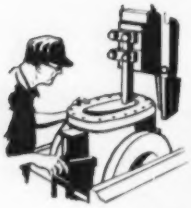

A DISTINCTIVE FEATURE IN DISC GUIDING

Body guides are machined down to precision tolerances, assuring a perfect guide for the disc and creating a positive center line on which all subsequent machining operations are based.

BODY PRECISION MACHINED TO INSURE PERFECT FIT OF SEAT RINGS

This operation makes inserting the seat rings in a Lunkenheimer gate valve simply a matter of screwing them into position. Parts can be replaced without any machine work or special fitting.

Precision Made LUNKENHEIMER VALVES....

assure perfect-fitting, interchangeable parts... longer valve life... easier, lower-cost maintenance!

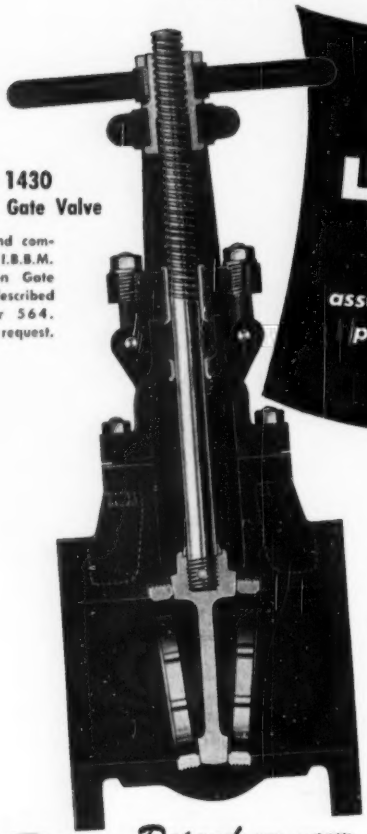

Fig. 1430
Iron Body Gate Valve

Fig. 1430 and complete line of I.B.B.M. and All Iron Gate Valves are described in Circular 564. Mailed upon request.

THE smooth working efficiency and low maintenance cost of Lunkenheimer Valves were not "made in a day." Behind this superior performance and economy lies long experience, top engineering and metallurgical facilities together with the most modern manufacturing equipment.

Lunkenheimer Valves have a streamlined simplicity of design . . . a minimum of working parts, each part of extra strength, correctly proportioned and perfectly balanced. This assures longer life with lower maintenance expense.

Depend on your **LUNKENHEIMER DISTRIBUTOR** *for service and reduced valve inventory!*

Many concerns, large and small, have found real savings by depending on the complete stocks of Lunkenheimer Distributors. Capital formerly tied up in slow-moving inventory is available for other uses; losses from obsolescence are eliminated or drastically reduced. Ask your Distributor how he can help you.

ESTABLISHED 1862

THE LUNKENHEIMER CO.

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WHY USE 2 DE-SIZING AGENTS WHEN 1 WILL DO BOTH JOBS?

AMPROZYME

THE NEW DOUBLE-ACTION DE-SIZING AGENT CONVERTS BOTH STARCHES AND PROTEINS IMMEDIATELY AND IN ONE OPERATION

There is no need for two different de-sizing agents or for two different de-sizing operations when you use AMPROZYME. If the size is starch, its amylolytic enzymes go right to work. If a protein size is present, its proteolytic enzymes take up the attack. AMPROZYME digests either or both at the same time and in the same operation.

AMPROZYME, furnished in powder form, can be used at all normal dye box temperatures and in a wide pH range. Its rapid double-action insures quick and complete de-sizing of cottons, rayons and mixed goods, producing a good hand and fine finish for even dyeing without streaks, shading or blemishes.

When you use AMPROZYME you do more than effect economies in de-sizing operations. You reduce storage, handling and shipping costs as well, for you have one product that does two jobs. You're never out of the proper de-sizing agent with double-acting AMPROZYME.

Send the coupon today for full information on AMPROZYME and a sample for a test run. Why buy two products when one will do both jobs?

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JACQUES WOLF & CO.
Chemicals PASSAIC, N. J.

Manufacturers of Monopole Oil, Superclear, Hydrosulfites, Oratol L-48, Lomar PW, and other chemical specialties

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☐ *I want to know more about AMPROZYME.*

☐ *I would like sample for a test run.*

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NEW Motor Speed Controls

Question:

In how many textile applications can Taylor controls help you cut costs?

Answer:

Twenty-five (*at least*)

It's true! 30 years ago Taylor was the first instrument manufacturer to get interested in the textile business. We introduced the first practical system of Slasher control in 1919. We've grown up with the industry and today we can offer you instrumentation that will save you money on practically any application in your mill from the first phase of processing to the last. Listed below are some of the time-proven Taylor control systems now available:

SIZE COOKING
SIZE STORAGE KETTLE
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TENTERING
PIECE DYEING
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MECERIZING
SKEIN DYEING
TOP DYEING
JIG DYEING
WOOL SCOURING
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AIR CONDITIONING
CAKE SOAKING AND DRYING

Ask your Taylor Field Engineer! Or write Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada. Instruments for indicating, recording and controlling temperature, pressure, humidity, flow and liquid level.

TAYLOR INSTRUMENTS MEAN ACCURACY FIRST

NEW Motor Speed Controls for D-C Motors from A-C Lines

Type 1700

Type 1701

These New General Radio *VARIAC** *Speed Controls Feature*

- Operation of 1/3 and 1/4 h.p. d-c shunt or compound, 1/20 h.p. d-c shunt and 1/20 h.p. universal motors, from A-C LINES
- Continuously-variable Speed Ranges of Over 15 to 1
- Extremely fast Starting — Large Overload Capacity
- Fast Stopping — Dynamic Braking (on 1/3 and 1/4 h.p. units)
- Extremely Fast Reversing
- Good Speed Regulation
- Smooth Operation — Less Torque Pulsation
- Straightforward Circuit
- All Controls and Circuits in One Small, Easily Mounted Box
- For Use with STANDARD D-C Motors, No Derating Necessary

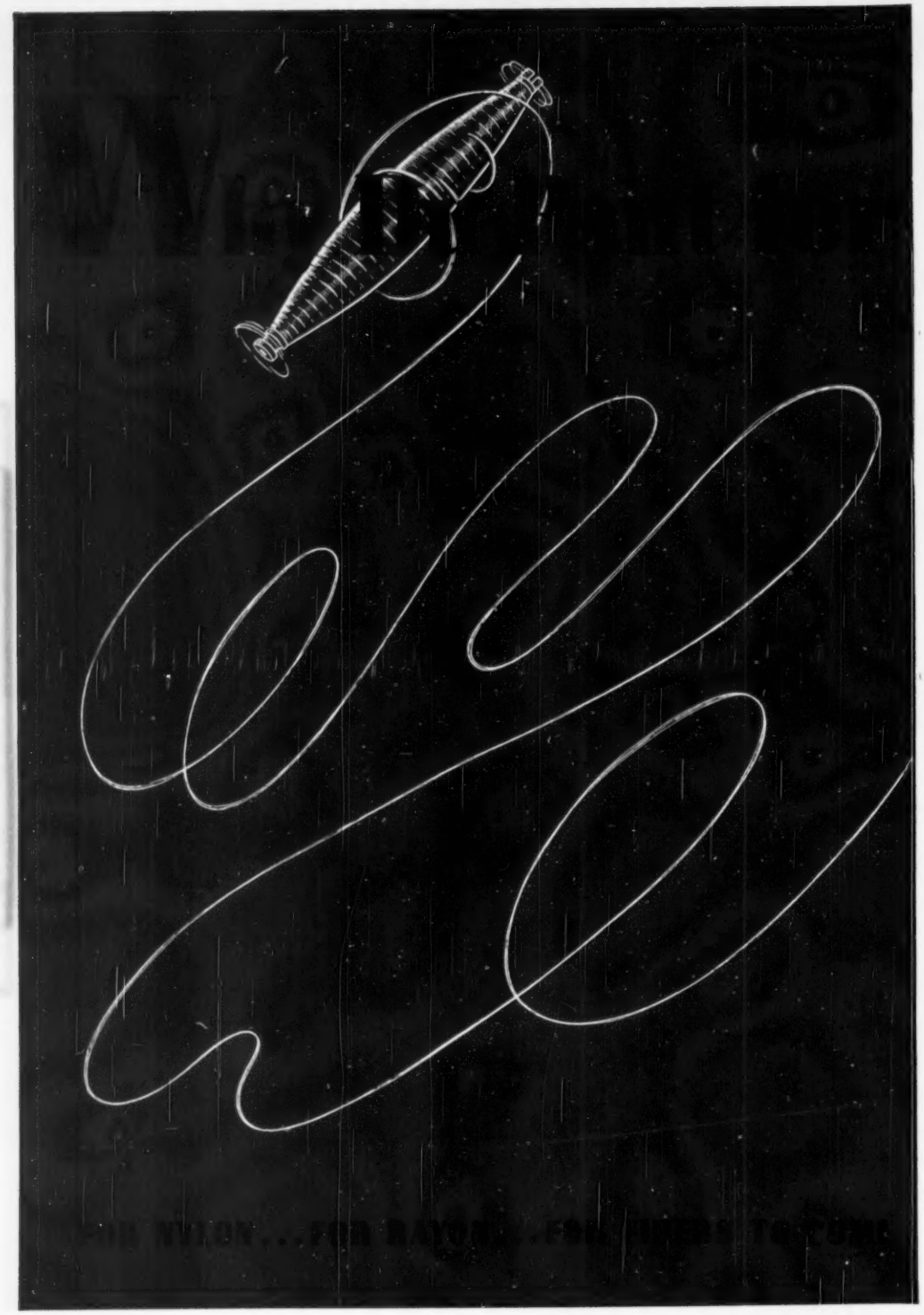
Trade Name VARIAC is Registered at the U. S. Patent Office

Variac Speed Controls

TYPE	FOR USE WITH D-C MOTOR OF	A-C LINE	PRICE
1700-AL	1/3 or 1/4 h.p. shunt or compound wound	105-125 volts (50-60 cycles)	$175.00
1700-AH	ditto	210-250 volts (50-60 cycles)	175.00
1701-AK	1/20 h.p. shunt wound	105-125 volts (60 cycles)	65.00
1701-AU	1/30 h.p. Universal	105-125 volts (60 cycles)	65.00

For complete data write for:
VARIAC MOTOR CONTROL BULLETIN

GENERAL RADIO COMPANY Cambridge 39, Massachusetts
90 West St., New York 6 · 920 S. Michigan Ave., Chicago 5 · 1000 N. Seward St., Los Angeles 38



BEHIND IT ALL . . . THE *Dream*

Creative imagination is behind the success of every man-made fiber—the inventive imagination of the chemist—the daring imagination of the fabric designer—the merchandising imagination of the manufacturer.

What textile designer hasn't been stimulated by the idea of controlled irregularity—a yarn thick and thin just as you want it? Du Pont Thick-and-Thin Rayon has contributed to the intriguing texture of many fabric sales successes—it is one of America's most interesting textile fibers.

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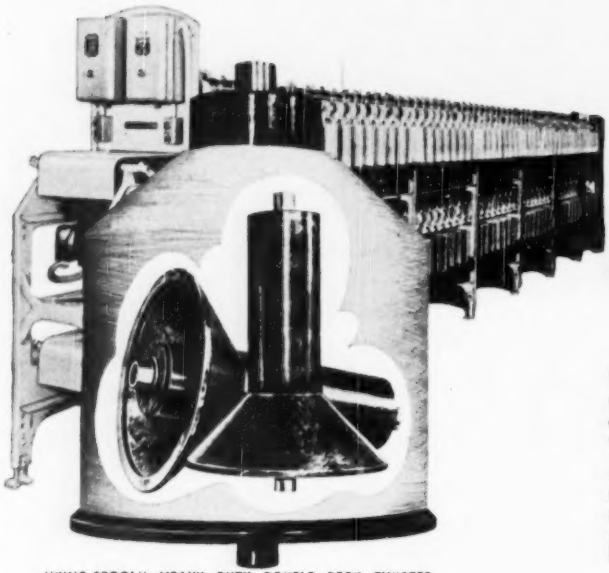
BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



"KING-SPOOL" HEAVY DUTY DOUBLE DECK TWISTER

WHY *Fletcher?*

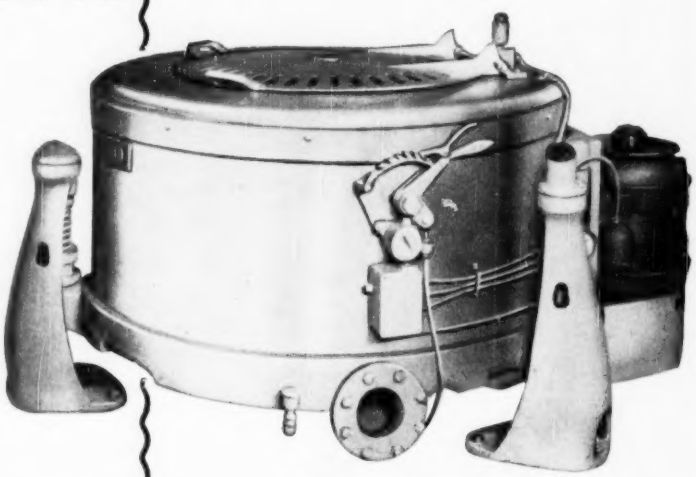
When you purchase Fletcher Equipment, you're not buying just any piece of machinery. You're buying 100 years, a whole century, of "know-how."

And Fletcher applies this experience and specialized knowledge to designing and manufacturing the best textile machinery available. "Why not specify Fletcher Textile Equipment!"

FLETCHER PRODUCTS

- Textile Extractors for Dye Houses
- Looms for Weaving Narrow Fabrics
- Throwing Machinery for Rayon and Synthetics
- "Oilwell" and anti-friction Spindles
- Jacquard Machines — Battens — Shuttles and Blocks

Below: "WHIRLWIND" EXTRACTOR



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TEXTILE MACHINERY and

PUBLISHED BI-MONTHLY FOR TEXTILE MILL EXECUTIVES AND OPERATING PERSONNEL BY PROCTOR & SCHWARTZ, INC.

• FEBRUARY 1950 •

PROCTOR AUTOMATIC EQUIPMENT GREATLY IMPROVES STOCK HANDLING IN ALL TYPES OF TEXTILE MILLS

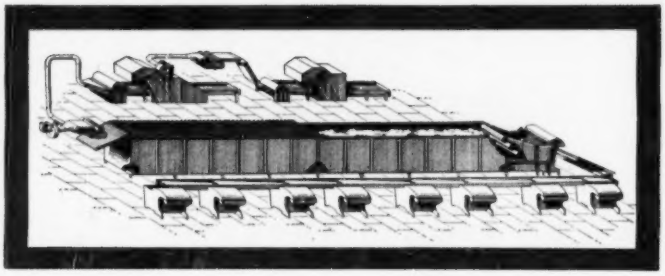
Systems can be "Job Engineered" to meet individual mill requirements

During the past two or three years, Proctor engineers have made great strides in the development of many automatic and semi-automatic blending systems for use in all types of textile mills.

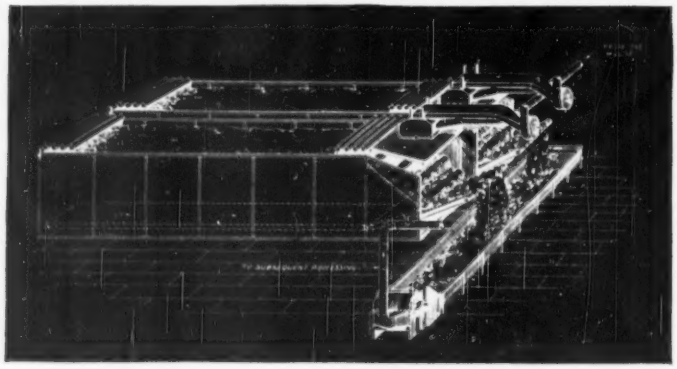
The types of systems designed and installed during this period have ranged from the most simple system—employing one picker, fed manually—up to fully automatic systems with a series of pickers, fed by automatic weighing feeds. The output needs, type of blending required, degree of labor saving to be achieved, all enter into the recommendation of any one plant.

The development of automatic stock conveying systems has also been a part of this general trend in equipment development. By means of these systems, many mills have stock delivered where it is wanted, when it is wanted and in exactly the amount needed—entirely automatically.

A recent study of one large mill revealed three immediate possible applications for automatic blending and stock conveying systems.



The system illustrated at the top, shows a combination of equipment for taking various stocks from bales, opening and blending those stocks thoroughly and then automatically depositing the stocks into card hoppers. The system employs two bale breakers, two pickers, two overhead condensers, a roller distributor over a blending box and a series of overlapping conveyors for automatically feeding stock to the hoppers. The entire system is controlled by electrical switches tied in with feeler mechanisms on the card hoppers. Hoppers are kept supplied with stock automatically. System shuts off when hoppers are filled and resumes operation as soon as any hopper needs stock.



The system below is used to provide an accurate means for achieving uniformity in blending various dye lots of stocks and assures a greater uniformity in the color blend than anything ever before used. By means of this system, which has as its backbone two overhead roller distributors, several dye lots are blended into an even shade for subsequent processing.

Still another application of Proctor automatic equipment, picks up stock from bale breakers and drops it into any one of several dye kettles, entirely automatically and with the stock in the best possible condition for dyeing.

These systems are making possible great savings in labor and at the same time eliminating all of the guesswork so long considered a necessary evil in the textile mill. Variations of the basic principles are being made all of the time.

Remember—Proctor automatic blending or stock conveying equipment can be job engineered to your plant problem. Have Proctor engineers study your problem with you and make recommendations.

DRYING EQUIPMENT News

"TECHNOLOGICAL STAGNATION" *CAN BE PREVENTED*

"Technological stagnation" is a disease that can strike any textile mill—and if allowed to continue out of hand, can kill a business which may otherwise have a long healthy life.

However, when the early symptoms are recognized by foresighted management, it can be prevented —or if it has already set in, it can be cured.

It simply takes a clear diagnosis of "obsolescence", one of the earliest symptoms. This must be followed by a strong dose of practical planning, within the company's ability, to provide for replacement of tools and equipment.

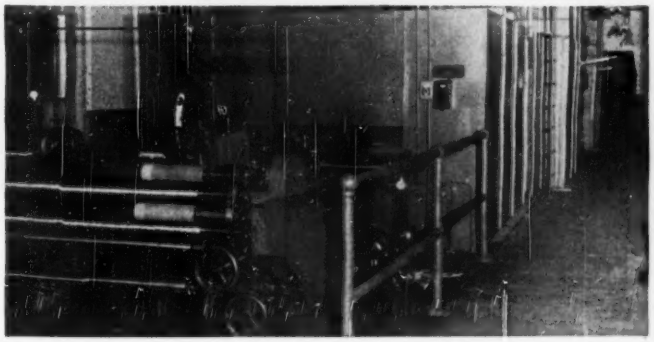
Obsolescence isn't so much a matter of years, as it is of ability to produce profit. Alert management seizes the opportunity to replace a machine or process when a new one will pay for itself in two or three years. There is an abundance of such opportunities in the textile industry today. The time to replace a machine or process, is when it can be replaced at a profit, even though it may be in apparent good running order.

Planning your financial structure to provide for replacement at a profit, taking the equipment manufacturer into your confidence and working with his technologists, is the kind of preventive treatment that can completely ward-off crippling "technological stagnation" in your mill.

Where drying equipment, preparatory machinery, cards or garnetts are involved in your operation, Proctor engineers will gladly assist you by providing facts and figures to help you determine how Proctor equipment can replace your older machinery —at a profit.

DALGLISH OVERFEED PIN TENTER

produces the quality of imported fabrics at the speed America demands

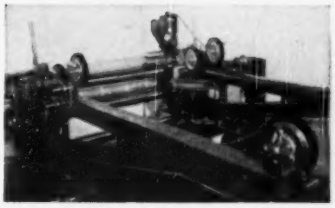


The Dalglish Pin Tenter—originally developed by John Dalglish & Sons in Scotland and now manufactured and sold in America under license by Proctor & Schwartz, Inc., makes it possible for the finisher to produce fabrics with a custom finished hand at new high speeds.

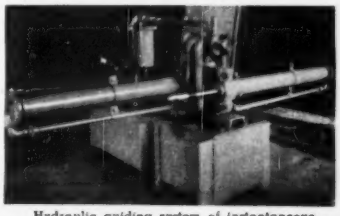
A perfected overfeeding device, which is infinitely variable from 5% to plus 35% on certain fabrics with absolute uniformity, is one of the major contributing factors to the quality and hand of the fabrics. The drying system employed with this tenter, provides a balanced, high speed means of drying, permitting fabrics to be handled up to 100 yards a minute.

Because of the control that is possible with this system, results established on one fabric can be reproduced on the next run without question.

For complete information on the possibilities of applying this system to your fabric finishing—write today.



Close up shows overfeeding gear of micrometer accuracy, which contributes largely to quality finishing.



Hydraulic guiding system of instantaneous sensitivity—guiding to an accuracy of 1/32" to 100 yards per minute.

Much Proctor drying machinery and textile equipment is covered in full or in part by patents or patents pending.

44

Years

★

AS ELECTRICAL CONTRACTORS
TO THE TEXTILE INDUSTRY

★

J. M. CLAYTON COMPANY

Contracting Electrical Engineers

ATLANTA, GEORGIA

SANDOZ PRESENTS *The color achievement of the month*

Petal Pink ...BY SPRINGFIELD

As sure of the "lastingness" of the color as it is of the wearability of the fabric . . . Springfield Woolen Mills calls this its "generation" blanket — and promises its customers: A generation hence . . . your first thought will be, "That was a grand buy!"

To maintain the reputation for the durability of its blankets, Springfield takes care to match its own resources with the finest possible supplies . . . and numbers among its suppliers, Sandoz, for dyestuffs of highest quality.

Sandoz colors which combine assurance of everlasting customer satisfaction with dye house economy include — for products like wool blankets — a line of fast-to-light milling colors such as Brilliant Alizarine Milling Blue BL (Pat.) and Levana, a protective and leveling agent for the dyeing of milling and chrome colors on wool.

Then there are Sandoz' exclusive Metomega Chrome Colors, which save time in checking formulas and in boiling; CUPROFIX, the new after-treatment which gives wet fastness to selected direct-dyed goods without the extra cost of vat dyestuff; and many others. So for any chrome, acid or direct dyes . . . or auxiliary chemicals . . . for both natural and synthetic fibres . . . be guided by the successful "color achievements" you see in these Sandoz advertisements.

SANDOZ CHEMICAL WORKS, INC., 61 VAN DAM STREET, NEW YORK 13, N. Y.

Application laboratories and stocks at Boston, Philadelphia, Charlotte, Chicago, Los Angeles, Toronto • Other branches at Providence, Paterson and Montreal

SANDOZ *thinks ahead with textiles*

THIS IS NO. 79 OF A SERIES ON

GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

KEEPING AN EYE ON WEAR
No. 90 Filling Winder

Faulty work on a winder can often be traced to worn parts. Therefore, checking the machine periodically for wear will help immeasurably in obtaining the best possible performance and quality results.

These are the parts that should be checked regularly on the No. 90 Filling Winder.

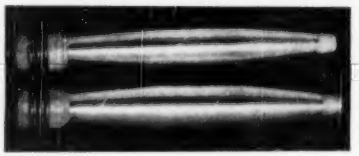
DRIVING SHAFTS AND BUSHINGS

If the driving shaft can be moved in and out, this indicates wear on the ends of the bushing that contact the driving pulley and collar. This not only causes excessive wear on the gears, but also creates a pumping action which draws oil out through the bushing. Bushings that are worn enough to allow end play of .010 in. should be replaced.

If, with the driving pulley removed, the shaft can be moved up and down for a total of .005 in. and oil oozes out between the shaft and bushing, the shaft or bushing is probably worn. A tight driving belt cramping the shaft can be responsible for excessive wear at this point. If the shaft needs to be replaced, the bushing should also be checked for wear.

To prevent excessive wear of these two parts, it is advisable, to inspect, quarterly, the return oil hole in the gainer case to make sure that it isn't clogged.

While the driving pulley is off the shaft, the packing inside the pulley should be checked. There are two leather inserts which act as a seal to prevent oil from travelling along the driving shaft to the outer end of the driving pulley and then getting on the driving belt, causing slippage. When these inserts need to be replaced, we suggest that the pulleys be returned to the Universal Winding Company, because special tools are required for this operation.



Replacing worn parts helps produce quality bobbins.

ROCKER SHAFT SLEEVE AND TRAVERSE BAR LEVER

Any slight amount of end play in the rocker shaft means that the sleeve (90-72) has become worn. Since the engagement of the traverse bar levers and drivers is extremely delicate, even a slight dislocation of the rocker shaft will cause the traverse bar levers to engage incorrectly. This affects the action of the clutch lever, which in turn will have a tendency to aggravate wear of the traverse bar levers. The following checks will indicate whether or not these parts are worn:

Traverse Bar Levers and Drivers With the machine running and the spindle in the running position, grasp the traverse bar. If it can be held motionless, the driver and the lever lock on the traverse bar lever are worn and should be replaced.

Traverse Bar Levers Our most recently designed traverse bar lever has a replaceable lock which makes it unnecessary to remove the rocker shaft and replace the traverse bar lever when the lock is worn. However, it is good practice, after a machine has been in operation for a considerable length of time, to remove the rocker shaft at least part way and inspect it for wear.

Clutch Levers If the spindle continues to run after the lock and driver have been disengaged and the spindle driving gears are set to .010 in. clearance, the clutch lever is worn and should be replaced.

TRAVERSE BAR BEARINGS

The traverse bars and traverse bar bearings are manufactured to very close tolerances. If there is too much play between these two parts, it will be impossible to obtain uniform bobbins from spindle to spindle.

TRAVERSE BAR CONNECTING ROD

In time, the pin on the traverse bar connecting rod may become worn, causing excessive play of the pin in the hole in the traverse bar lever. This might cause a slight dwell at the extremities of the traverse stroke; consequently, the connecting rods should be replaced whenever the pin appears to be worn.

OIL TUBE CONNECTIONS

The oil tubes distribute oil throughout the frames, so naturally the machine must be level in order to maintain the correct amount of oil in each frame. However, the oil tube connections are inclined to settle and should be tightened once a year to prevent leakage. A partial turn on the expanding nuts flares the brass bushings and seals the connections. Since the space inside the frame does not permit the use of an ordinary wrench, two special wrenches are used for this purpose: 90-693-B and 90-693-C.

Reg. U.S. Pat. Off.
23.9.4

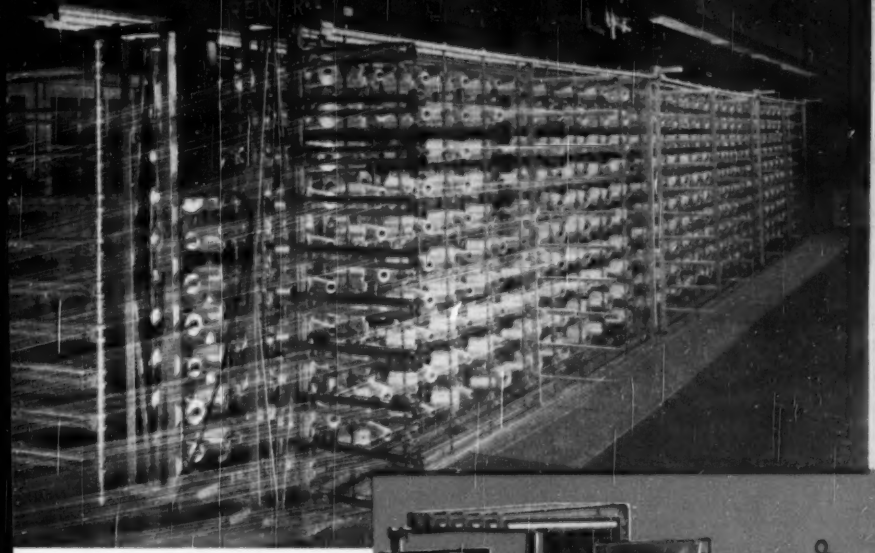
January 1950

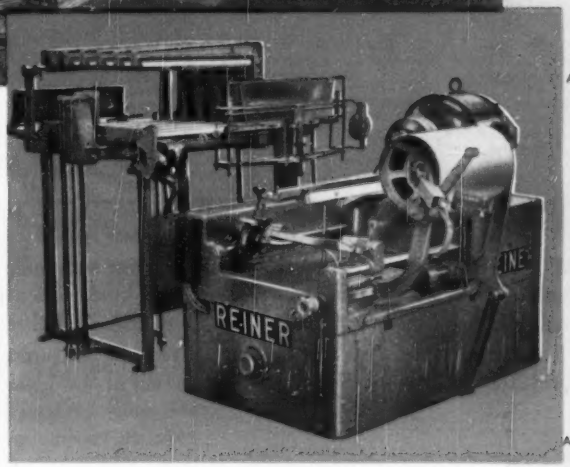
WINDING AND TWISTING MACHINERY FOR NATURAL AND SYNTHETIC YARNS

UNIVERSAL WINDING COMPANY

Universal Division

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA CHICAGO LOS ANGELES MONTREAL and HAMILTON





REINER

STANDARDIZES ON ALSIMAG®

CONDUCTIVE TYPE THREAD GUIDES

on installations for synthetic fibers

Robert Reiner, Inc., adopted AlSiMag 193 Thread Guides as standard equipment on magazine creels and sectional warpers to be installed in plants running synthetic fibers.

In ever-increasing volume, textile mills have specified AlSiMag guides on original equipment. Reiner's own tests plus mill records proved that AlSiMag guides were the longest lived, most efficient guides for this equipment. In some instances, AlSiMag guide costs were as little as 5% of former guide costs per pound of yarn processed. As an extra dividend these guides, properly grounded, help control static.

Reiner was the first of several leading textile machinery manufacturers to adopt AlSiMag guides as standard equipment. AlSiMag guides are custom-made and are available for any equipment, made to any design. Stock samples sent without charge. Handmade samples to your individual design can be furnished promptly at moderate costs. Test AlSiMag guides in your plant and let the results give you the answer.

REPLACEMENT GUIDES

Replacement guides will be carried in stock by Robert Reiner, Inc., at Weehawken, New Jersey, for immediate shipment. The same guides can be ordered from American Lava Corporation, Chattanooga, Tennessee, for delivery from normal production schedules.

Reiner No. CR 1803
AlSiMag No. GE-19123

Reiner No. CR 1804
AlSiMag No. GE-19122

Reiner No. CR 1805
AlSiMag No. GE-19121

Reiner No. CR 1806
AlSiMag No. GU-8146-D

Reiner No. CR 1807
AlSiMag No. GE-21111

Reiner No. CR 1808
AlSiMag No. GE-22260

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NEW ENGLAND, 38-B Brattle St., Cambridge, Mass., Kirkland 7-4498 • ST. LOUIS, 1123 Washington Ave., Garfield 4959

READER PREFERENCES IN THE TEXTILE FIELD

(As expressed by mill executives)

Ranking of 6 Textile Publications in Order of Value to Mill Executives

A 31% return from 1701 textile executives, in as many mills, ranks T.I. first with a total almost equal to the next three publications combined, in the industry's most recent reader survey.

The returns: for T.I.—234; for Publication B—131; for Publication C—75; for Publication D—42; for Publication E—27; for Publication F—20.

The comparative ratio is shown in the graph. Weight of preference for TEXTILE INDUSTRIES is a striking indication of its leadership and wide acceptance throughout the industry.

ON SEPTEMBER 2, 1949, a nationally-known firm of accountants conducted a readership survey among 1701 textile mill executives to determine *impartially* what industry publications were of most value in providing helpful information on mill operations.

From a 31.1% response received, TEXTILE INDUSTRIES was ranked first by 234 readers, while the second and third publications together had a total of 206. The questionnaire was mailed to the superintendent or another executive of every mill listed in Clark's Directory of Southern Textile mills.

This directory was used because it lists only those mills that are strictly textile manufacturing plants.

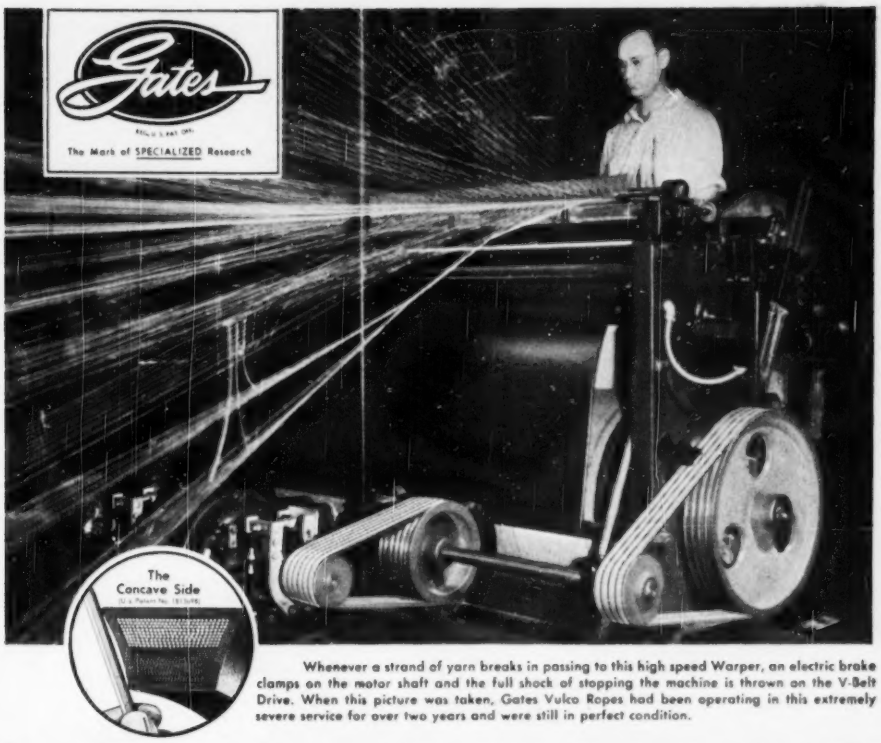
These mills have 64% of the country's total spindles, 62% of the looms, 55% of the knitting machines—consume nearly 70% of the total fibers of all kinds and account for 63% of all textile purchases. With the South recognized as the dominant and most rapidly expanding textile section in the United States, it is significant that the mills prefer TEXTILE INDUSTRIES almost two-to-one over any other textile publication—that over 85% of the mills responding regularly read TEXTILE INDUSTRIES and find it of value in their operations.

The acceptance enjoyed by T.I., not only in the South, but in the nation-wide textile industry, grows naturally from its practical editorial service to production and management men. Month after month and year after year T.I. has worked steadily to give its readers the kind of special help and information they cannot find elsewhere. The inevitable consequence of this policy is that today T.I. has the largest mill circulation in the United States.

***TEXTILE INDUSTRIES* is edited**

for the Production and Management Men

in the Textile Industry

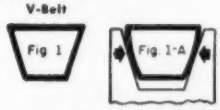


Whenever a strand of yarn breaks in passing to this high speed Warper, an electric brake clamps on the motor shaft and the full shock of stopping the machine is thrown on the V-Belt Drive. When this picture was taken, Gates Vulco Ropes had been operating in this extremely severe service for over two years and were still in perfect condition.

Two Distinct *Savings* in *V-Belt Costs* Are *Yours* with Gates Vulco Ropes

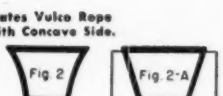
What Happens When a V-Belt Bends

Straight-Sided V-Belt



How Straight-Sided V-Belt Bulges in Sheave-Groove.

Gates Vulco Rope with Concave Side.



No Side Bulge. Precise Fit in Sheave Groove.

A simple test that takes less than two minutes will save you many dollars in V-Belt costs. Here it is—

Have someone bend a V-Belt exactly as it bends in going around its pulley. As it bends, grip its sides with your fingers. You will *feel* those sides *change shape.* In a straight-sided V-Belt, the sides become *convex* as the belt bends. And note how the sides *bulge out.* (Figures 1 and 1A)

Now try the same test with a V-Belt that is built with the concave side. You will feel a change in shape—but a *different result!* The sides do not become *convex.* Instead, they become perfectly straight. *The bent belt now has a shape that exactly fits its sheave groove*—as shown in Figures 2 and 2A.

Two distinct savings result. *First*—There is no side-bulge to cause uneven wear. The sides press *evenly* against the V pulley and therefore wear *uniformly*—resulting in *longer life!* Second—The *full width* of the sidewall grips the pulley—thus carrying heavier loads without slippage—and this *saves belts* and also saves *power!*

When you buy V-Belts, be sure you get the V-Belt with the Concave Sides... the Gates Vulco Rope!

C.S. 501

THE GATES RUBBER COMPANY
DENVER, U.S.A.
The World's Largest Makers of V-Belts

GATES VULCO ROPE DRIVES
Engineering Offices and Jobber Stocks IN ALL INDUSTRIAL CENTERS of the U.S. and 71 Foreign Countries

Are you using the best starches for your purpose?*

*Full technical service, without obligation, is available to help you profit from the use of a starch "tailor-made" for your particular production problem.

In addition to technical service, we maintain continuing research in the field of starch chemistry, under the direction of the foremost research men in this field.

Basic research and technical service are two facilities maintained to serve you better. For uniform quality products . . . for a reliable source of supply . . . depend on Corn Products Refining Company.

CORN PRODUCTS REFINING COMPANY

17 BATTERY PLACE • NEW YORK 4, NEW YORK

Years of smooth-running production ahead for these new **roving frames**

with the help of Gulf Lubrication

The kind of lubrication these new roving frames get down through the years will play an important part in determining the quality of the roving they produce, how long they retain their efficiency, and how much they cost to operate.

To insure proper lubrication, the progressive management of this mill adopted the quality lubricants and application schedule recommended by a Gulf Lubrication Engineer. As a result, every bearing and gear gets better protection against wear and loss of accuracy. And that means higher quality yarn in the long run, plus lower maintenance costs.

Scores of the country's leading mills rely on Gulf Lubrication, report that it helps them keep their machines and equipment in better condition and helps them reduce costs. They know from experience that Gulf lubricants are high quality, uniform products—that each one does its job well. They have found the wide experience and broad practical knowledge of Gulf Lubrication Engineers invaluable—a source of real down-to-earth solutions for their maintenance and lubrication problems.

This kind of lubrication service has real dollar and cents value to you. Write, wire, or phone your nearest Gulf office today and ask a Gulf Lubrication Engineer to call.

Gulf Oil Corporation • Gulf Refining Company

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Located in principal cities and towns throughout Gulf's marketing territory

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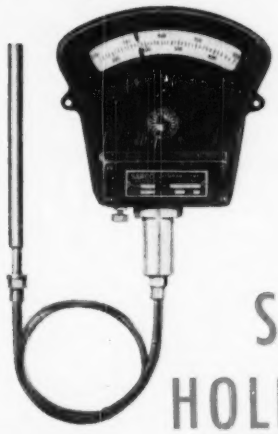
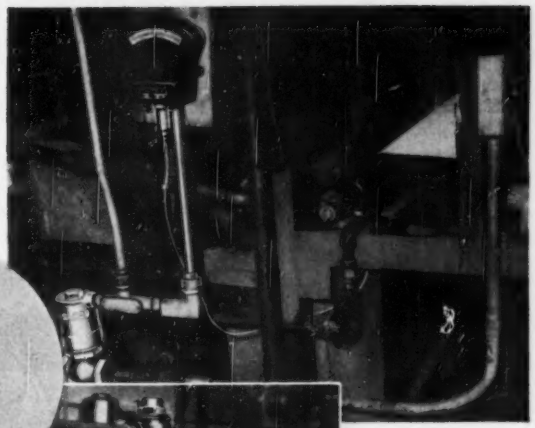
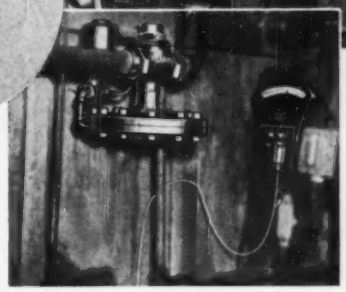
You get it—



SARCO HOLDS IT

Exactly and Always





DE-SIZING

DRYING

DYE BECKS

JIGS

PADDERS

Cut and try methods have to be used to determine ideal temperature settings whenever a new batch of goods goes through a textile processing plant.

Here's the control that can be adjusted over a wide range by the twist of the wrist as often as needed. Then regardless of other changing conditions, the temperature you want is held until you change it.

You arrive at the solution quickly—you go ahead with full assurance—full production and *no* lost goods due to temperatures. The exact temperature is also indicated—on a large dial with only the readings within your range. The LSI is not expensive—it is easy to install and rugged enough to stand up under severe service.

In combination with the Sarco DS Valve, Sarco offers a textile control system that users say has no equal.

ASK FOR DATA ON SARCO TEXTILE CONTROL SYSTEMS

361

SARCO COMPANY, INC.

Represented in Principal Cities

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SARCO CANADA, LTD., TORONTO 5, ONTARIO

SARCO SAVES STEAM

IMPROVES PRODUCT QUALITY AND OUTPUT

AIR CONDITIONING IN SPINNING ROOM BRINGS PROFIT INCREASE*

* **Based on actual case history of a Carrier installation**

A textile mill reports that after replacing its old air conditioning with a new Carrier system, spinning ran so well that spindle speeds were increased 5% with no increase in ends down . . . next, it boosted spinners' work load 14% — from 2016 to 2300 spindles. Obviously, yarn costs were reduced and profits increased . . . a direct result of better air conditioning because no other changes were made.

In addition to the actual profit increase, there were the usual intangible benefits of better air conditioning . . . benefits to men, materials, and machines that insure better yarn at lower cost.

Air conditioning a spinning room takes special knowledge and skill. Carrier's years of extensive research and experience in textile installations have given its engineers a valuable insight into the industry's problems. That is why Carrier is your best investment. Carrier Corporation, Syracuse, New York.

Carrier

AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING

Presenting A

NEW

Ball Bearing

LOOM MOTOR

Specifically designed and manufactured for Loom Service—incorporating time-tested, grease lubricated ball bearings.

Outstanding features include medium slip rotor design to more fully utilize kinetic energy of large diameter rotor—providing smoother operation—less vibration—less wear on gear and crankshaft bearings—minimum laysword and layend breakage.

Modern design which results in lower power costs due to higher overall efficiency in yards per kilowatt hour—no more oiling due to pre-lubricated ball bearing construction—rugged construction to withstand shock and vibration.

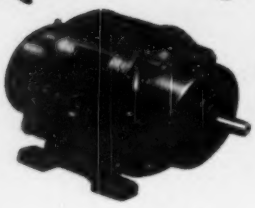
Available in NEMA frames 224 and 225—also in 214 and 216 frames for conversion of belt driven looms to individual motor drive—in horsepower ratings of $\frac{3}{4}$, 1, $1\frac{1}{2}$ and 2 in speeds of 1735 and 1145 R.P.M.—with angle connector or with conduit box—for use with $1\frac{1}{2}$ or 2 pinions.

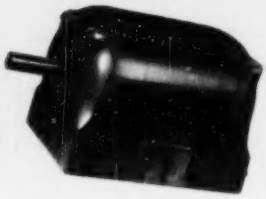
For additional information contact your nearest Louis Allis Sales Office, or write direct.

THE LOUIS ALLIS CO.

MILWAUKEE 7, WISCONSIN

No Matter *What* Your Motor Requirements Are!



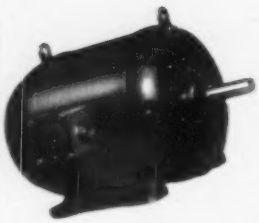


YOU CAN DEPEND UPON

LOUIS ALLIS

Service

No matter where you are located — there is a LOUIS ALLIS sales or service representative within a relatively few hours from you — at present there are exactly 1572* strategically located trained experts to serve you. A telegram or telephone call to the factory — or our local office will bring QUICK efficient service when needed.

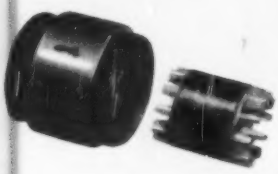


Selection

Nearly fifty years of designing and building special motors for special applications — plus the creating, developing, and pioneering of many special types of motors for special operating conditions —

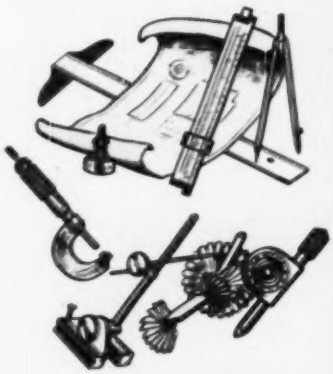
— give you one of — if not THE largest selection of sizes and types of standard and special motors in the entire industry today.

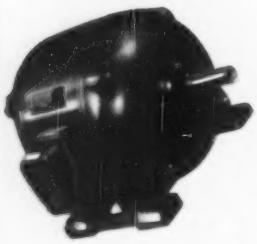
There is a size and type LOUIS ALLIS electric motor for every industrial requirement.



Creative Engineering

Almost a half century of creating and producing highly specialized motors for unusual applications has given our engineering staff a wealth of varied experience — experience that will be invaluable in helping design and create a special motor for YOUR particular special application.



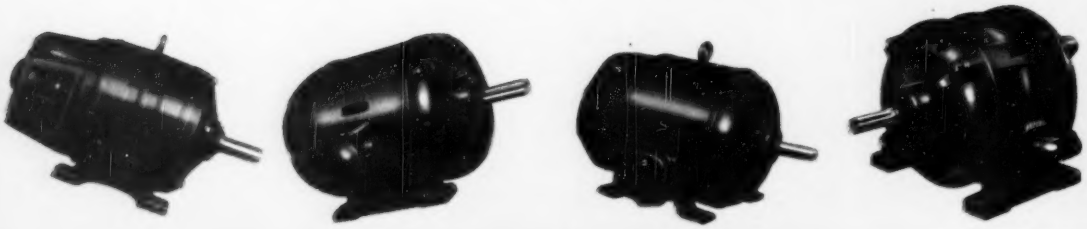


NO MATTER WHAT YOUR MOTOR REQUIREMENTS ARE — YOU CAN DEPEND UPON LOUIS ALLIS —

Your inquiry will receive our most prompt and careful attention.

*(actual count as of November 1, 1948—and growing fast.)

THE LOUIS ALLIS CO.
MILWAUKEE 7, WISCONSIN



ALUMINUM TRUCKS *take less push*

- *light weight*
- *non-staining*
- *no red rust*
- *eliminates painting*
- *high strength*
- *non-splintering*

Think of textile trucks made of Alcoa Aluminum as an investment in increased production. These lighter trucks take less push than steel or wooden ones. Yet they last longer and eliminate painting because of aluminum's resistance to corrosive textile mill atmospheres. Aluminum trucks will never stain yarns with red rust. There are no splinters to tear fabrics or bother workers' hands. The cost? Competitive with trucks of steel or wood.

Want to know who makes aluminum textile trucks? Mail the attached coupon to: ALUMINUM COMPANY OF AMERICA, 1990B Gulf Building, Pittsburgh 19, Pennsylvania.

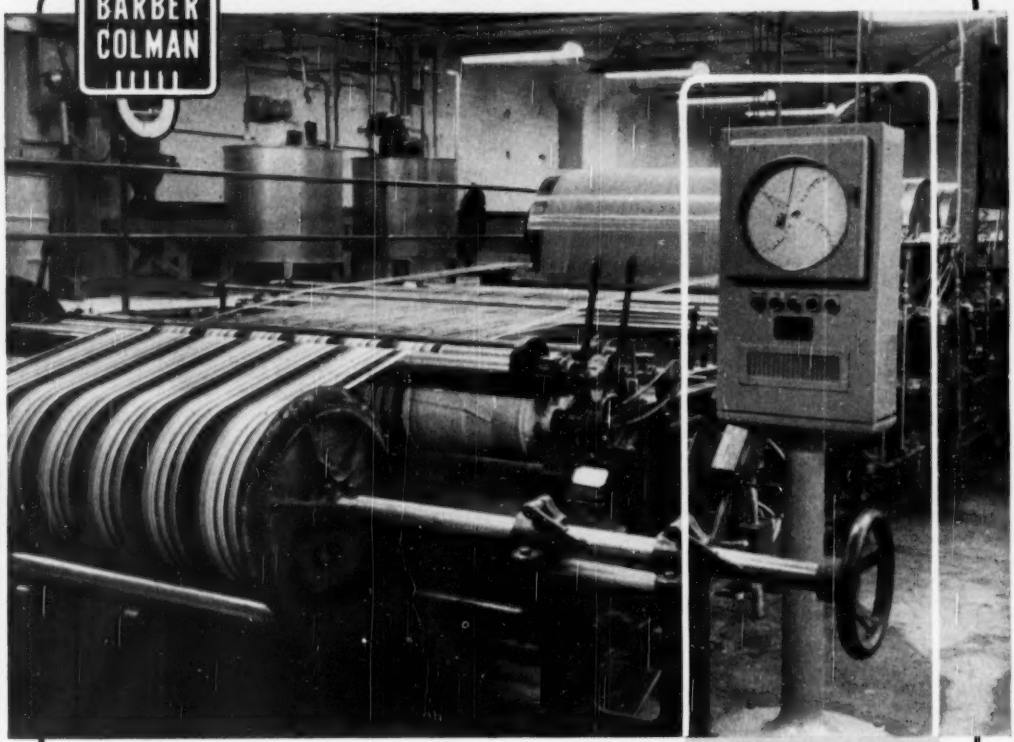
ALCOA
FIRST IN
ALUMINUM

ALCOA

Gentlemen:
Please send a list of manufacturers who are making textile materials handling trucks of Alcoa Aluminum.

Name_____
Title_____
Company_____
Address_____

BARBER COLMAN



ELECTRONIC MOISTURE CONTENT CONTROLLER

The new and improved, high quality, *all-electronic* unit shown here is applicable to all types of warp as processed on slashers having any type of variable-speed drive. In operation, a roller in contact with the warp as it leaves the slasher continuously measures the moisture content and, through the automatic electronic circuits of the Controller, causes the speed of the slasher to be adjusted so as to maintain uniformly the desired moisture content. The Controller is a proportioning type instrument equipped with automatic reset, hence the moisture content can be controlled at a constant level without "hunting" of the variable speed drive.

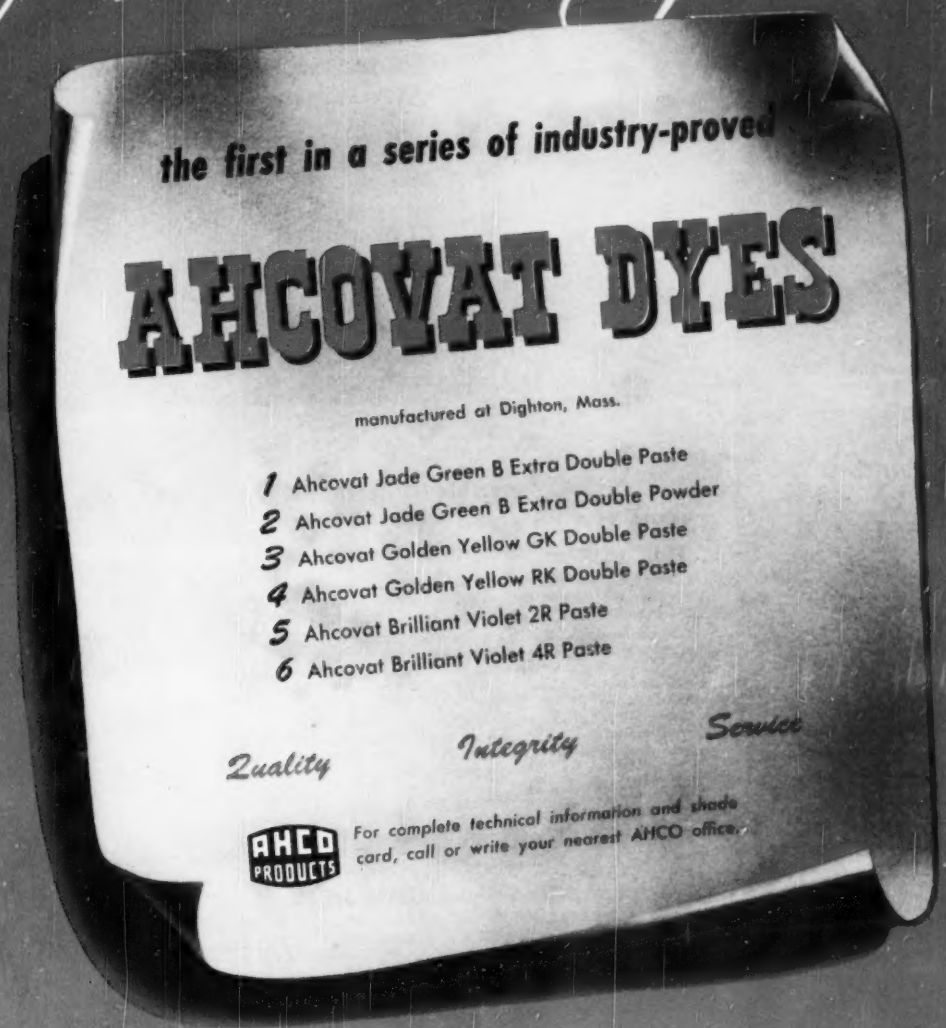
Barber-Colman engineers, who have gained "Know-How" through years of experience, will at your request and without obligation, make a survey of your slasher room. If Barber-Colman equipment is ordered, they will, upon delivery, supervise the installation and accurately calibrate the controllers. In addition, training courses for mill mechanics are offered at Barber-Colman branch offices to impart "Know-How" and thus assure continued efficient operation of the equipment. Let your Barber-Colman representative show you how to obtain lower costs, greater production, and better products.

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS

Write for Literature

BOSTON, MASSACHUSETTS • GREENVILLE, SOUTH CAROLINA • GREENSBORO, NORTH CAROLINA

Announcing . . .

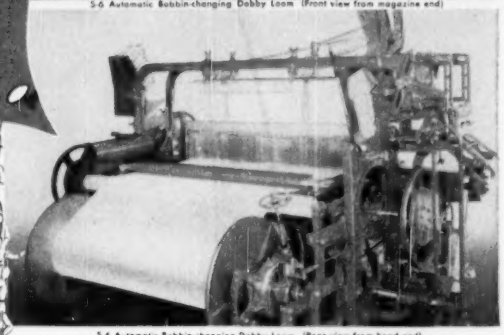

the first in a series of industry-proved
AHCOVAT DYES
manufactured at Dighton, Mass.
1 Ahcovat Jade Green B Extra Double Paste
2 Ahcovat Jade Green B Extra Double Powder
3 Ahcovat Golden Yellow GK Double Paste
4 Ahcovat Golden Yellow RK Double Paste
5 Ahcovat Brilliant Violet 2R Paste
6 Ahcovat Brilliant Violet 4R Paste
Quality
Integrity
Service
AHCO PRODUCTS
For complete technical information and shade card, call or write your nearest AHCO office.

ARNOLD-HOFFMAN
Providence, Rhode Island

ARNOLD-HOFFMAN & CO. INCORPORATED • EST. 1815 • PROVIDENCE, RHODE ISLAND
Dye Plant at Dighton, Mass. *Offices: Providence; New York; Cincinnati; Philadelphia; Charlotte*

Take a Trip Through the C&K S-6

S-6 Automatic Bobbin-changing Dobby Loom (Front view from magazine end)



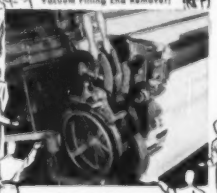
S-6 Automatic Bobbin-changing Dobby Loom (Rear view from head end)

"A" Girt Construction adds rigidity and reduces vibration

Simplified 2x1 Box Motion

Swing Type Magazine, Color Indicating Mechanism, Vacuum Filling Holder and Accumulating Jar

Swing Type Magazine (Inside view from front showing Vacuum Filling End Remover)



Take-up showing Drive Gears at head end

. . . and see how this Modern C&K Loom can give you NEW PROFITS in Rayons, Silks and Combinations

Check the 11 features bordering this page. These have been combined with the desirable features of existing bobbin-changing looms to make the C&K S-6.

The mill-tested S-6 is a 2x1 box automatic bobbin-changing dobby loom with vacuum filling control for top production weaving of dress, lining, blouse, and underwear fabrics from 40 denier up, and from 40" wide and up.

100 leading mills, with nearly 10,000 S-6 looms installed, have contributed to the S-6 success story. And your mill, too, can build new profits with this modern loom. Get in touch with C&K today.

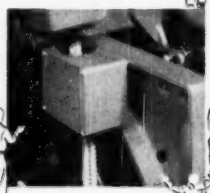
Crompton & Knowles Loom Works

WORCESTER 1, MASSACHUSETTS

PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.

CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R. I.

Precision Letoff with demountable weight lever arrangement

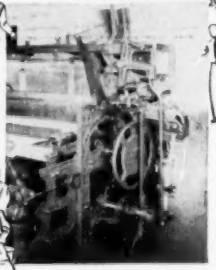


Warp Stop Indicator Light

Center Filling Stop Motion

Protection

Plate Type Clutch (long wearing friction segments designed for easy replacements)



Dobby, Dobby Drive and 2x1 Box Motion (rear view)

new!

exceptionally fast to light

ORANGE

Superlitefast DIRECT DYES

REG. U.S. PAT. OFF.

ORANGE LLLWF

Features:

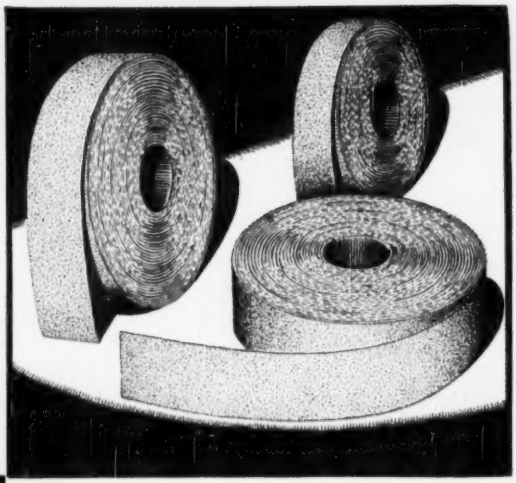
- ★ 150-300 hours light fastness
- ★ extremely level dyeing in all percentages
- ★ leaves acetate white
- ★ exceptional wash fastness at 160°F. with soap and soda, even without resin treatment
- ★ light fastness is not materially affected with curable resins.

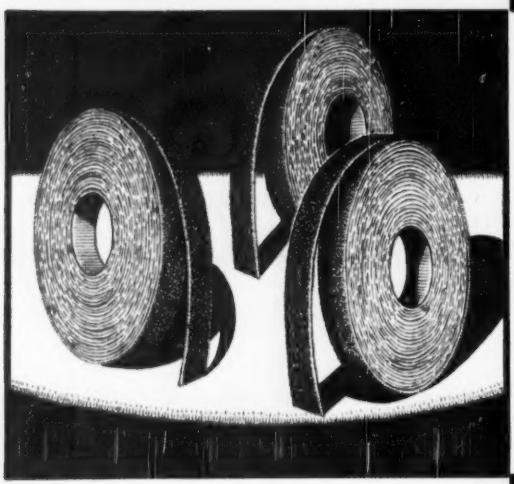
ALTHOUSE
Chemical Company, Inc.
READING · PA.

pace-setter in precision dye-making

TEXALOX
Roll Covering
by CARBORUNDUM
TRADE MARK

The uniform grain surface of TEXALOX roll covering grips material with gentle firmness, draws it evenly through the rolls without vibration. It runs cleaner, resists wear and does not bulge, creep, stretch or break. A special coating resists acid and dyes . . . does not rust.



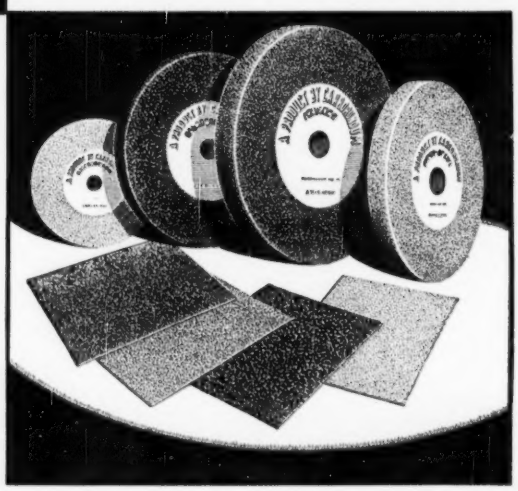


Fillet Cloth
by CARBORUNDUM
TRADE MARK

Both the volume and quality of slivers are improved by card clothing wires that are kept clean and sharp. Fast-cutting fillet cloth by CARBORUNDUM restores card clothing wires quickly and cleanly. No ganging. No bending. No hooking. The shedding of particles into the roving is avoided because the grains are securely bonded to heavy backings which are both flexible and stretch-resistant.

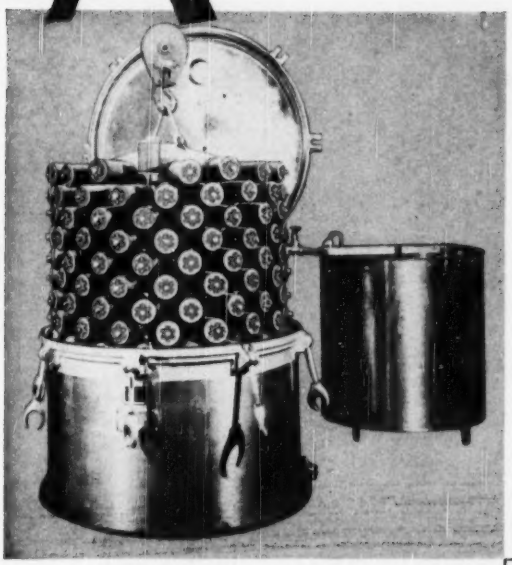
Abrasives
by CARBORUNDUM
TRADE MARK

For production, maintenance or tool room use, the right abrasive for the job is provided in a variety of grades, shapes and sizes of products by CARBORUNDUM. In specifying bonded or coated abrasives, it's an accepted practice to call in CARBORUNDUM. The Carborundum Company, Niagara Falls, N. Y.



"Carborundum" and "Texalox" are registered trademarks which indicate manufacture by The Carborundum Company

ANOTHER "STIENEN" ACHIEVEMENT



THE
Stienen
Reg. Trade Mark

RAYON AND ACETATE PACKAGE DYEING MACHINE

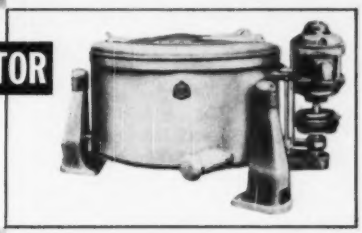
has been developed to supplement our Rayon Cake Dyeing Machine. It provides the dyer of rayon yarns with far greater flexibility.

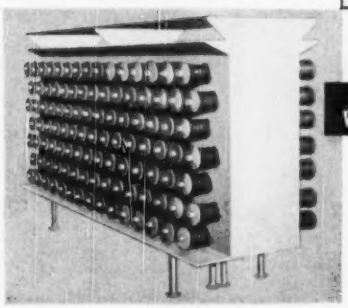
While our Rayon Cake Dyeing Machine has its distinct advantages for certain mills, the "Stienen" Rayon Package Dyeing Machine is of utmost importance to the entire rayon processing trade.

Package dyeing of rayon is ideal wherever the source of supply is in wound form. Rayon from any size cakes, cones or tubes may be dyed in the package form. Different types of rayon and synthetic yarns may all be dyed in this machine.

The cost of rewinding to the package for dyeing is negligible in comparison to the cost of skein winding. Quality of the original yarn is maintained, as no fibre disturbance takes place in our method of rayon package dyeing.

plus A NEW CENTRIFUGAL EXTRACTOR





plus RAYON PACKAGE DRYER

BUILDERS OF
Cotton and wool dyeing machines
for beams • packages
raw stock • skeins • rayon cakes
dye spindles • perforated tubes
centrifugal pumps • extractors and dryers

STIENEN
Lead with the LEADER
OBERMAIER
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NEW YORK, N. Y.

Patented & Patents Pending

Standard Fabricators
INCORPORATED
355 Walton Avenue • New York 51, N. Y.

Efficient HINNEKENS DYE BECKS EQUIP THE PLANT OF KLUGER, INC.

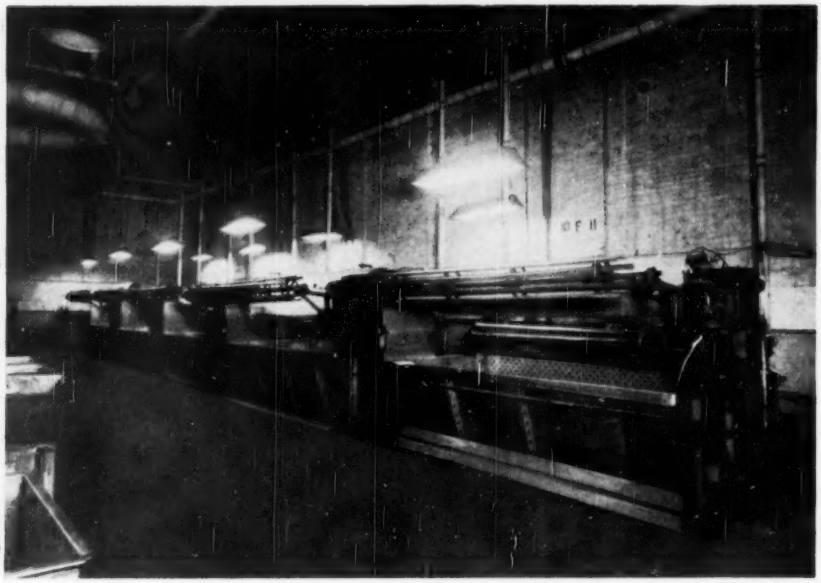


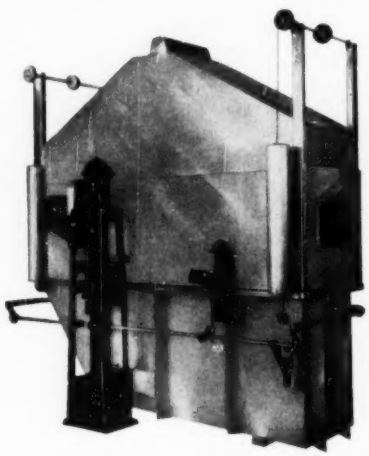
Photo courtesy of Kluger, Inc.

Showing four of a battery of 16 Hinnekens Dyebecks.

In the dye plant of Kluger, Inc., Fairlawn, New Jersey a battery of Hinnekens stainless steel open dye becks are relied upon to assure Kluger quality dyeing for every yard of fabric they process.

HINNEKENS STAINLESS STEEL ENCLOSED DYE BECK

is also preferred by leading dyers for uniformity of production and economical use of dyestuffs and steam.



The Hinnekens Line of Textile Machines

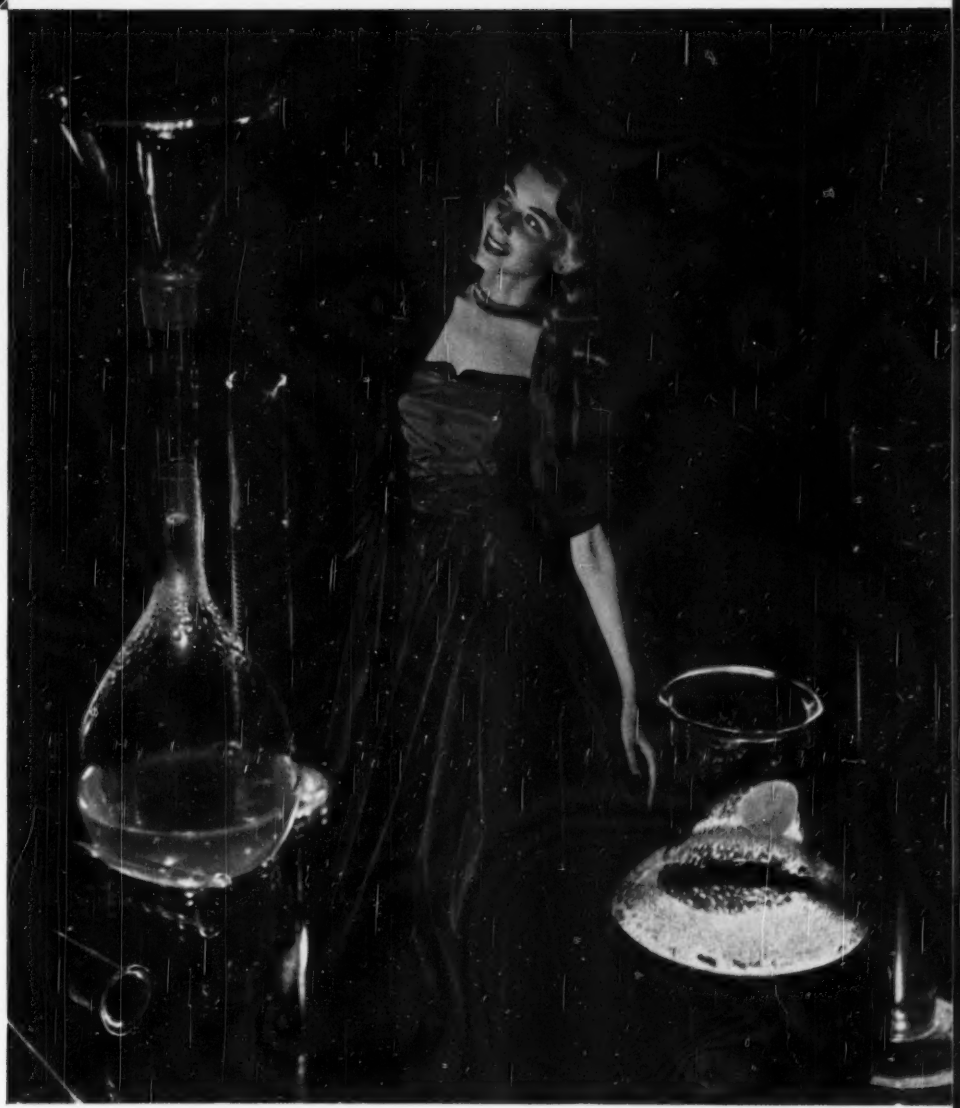
—includes Dye Becks, Embossing Machines, Dye Jigs, Calenders, Padders, Tentering Frames, Quetsches, Beamers, Examining Machines, Palmer Tenter Unit, Print Washers, Conveyer Dryers, Mangles, Rolls, and other essential equipment, distinguished by better design and functional excellence.

Send for Catalog and full description of these and other efficient Hinnekens Machines.

THE HINNEKENS MACHINE CO. INC.

199 GODWIN AVENUE **PATERSON, N. J.**

National Dyes add so much sales-appeal for so little



for DYNAMIC color effects always specify

National Aniline Dyes

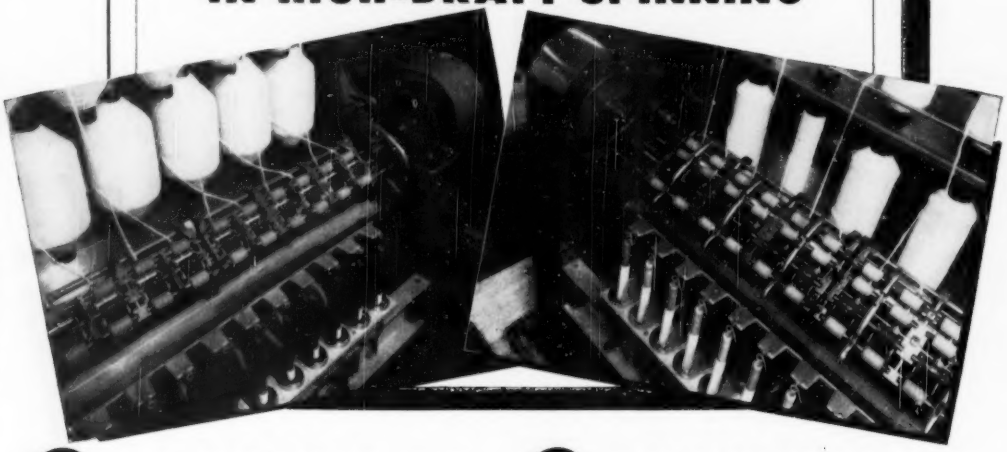
NATIONAL ANILINE DIVISION • ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y.

BOSTON • PROVIDENCE • PHILADELPHIA • CHICAGO • SAN FRANCISCO • PORTLAND, ORE.
GREENSBORO • CHARLOTTE • ATLANTA • NEW ORLEANS • CHATTANOOGA • TORONTO

H&B *Announces*

2 NEW DEVELOPMENTS IN HIGH-DRAFT SPINNING



1 H & B CASABLANCAS SUPER HIGH-DRAFT SYSTEM

For Drafts from 24 to 50

Offers great flexibility in draft ranges and, by means of adjustable roll settings at all points and a better control of apron travel and adjustments, produces a very high quality of yarn, both as to evenness and strength. Adjustable saddles and lever weighting. It is now possible, in many cases, to produce a warp yarn from single roving in the creel. Example: — has spun 1 1/16" staple cotton into 30's yarn from single .60 hank roving.

2 H & B CASABLANCAS 4-ROLL HIGH-DRAFT SYSTEM

For Drafts from 24 to 80

Developed primarily for finer counts of yarn, but is sufficiently flexible to spin all lower counts as well. Consists of 4 sets of rolls with double apron arrangement between first and second lines and a condenser directly in back of the double apron. Adjustable saddles and unique system of spring weighting. With three different drafting zones, makes possible drafts up to 80 with certain fiber lengths.

These two new systems are developments of the regular H & B Casablancas Double Apron System, also illustrated, which was designed for drafts from 14 to 24. This system is still available and is now made with lever weighting as well as spring weighting.

H & B CASABLANCAS REGULAR HIGH-DRAFT SYSTEM

For Drafts from 14 to 24

CRADLE AND TENSOR

HEART OF H & B CASABLANCAS SYSTEMS

Guide the aprons and standardize distance between front rolls and delivery nip of aprons. Tensors come in 6 different sizes and are interchangeable to provide positive control of various hanks being spun.

Tell us your spinning problem and let us recommend a system best suited to your requirements.

Watch for announcement on new H & B Spinning System for synthetic fibers

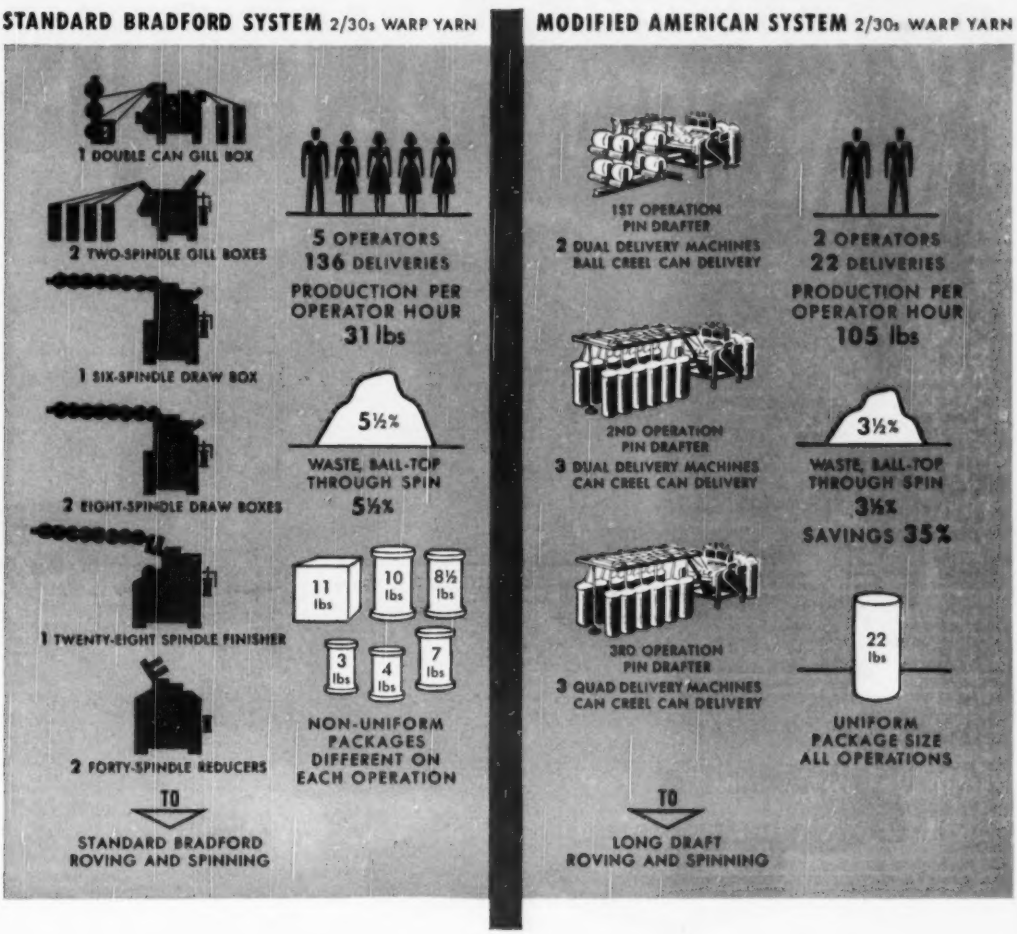
H&B AMERICAN MACHINE CO.

Builders of Modern Textile Machinery

FACTORY, EXECUTIVE OFFICES AND EXPORT DIVISION • PAWTUCKET, R. I., U.S.A.

BRANCH OFFICES:—Atlanta, Ga.-815 Citizens & Southern National Bank Bldg.; Charlotte, N. C.-1201 Johnston Bldg.

COULD YOU USE RESULTS LIKE THESE?



THE SCHEMATIC GRAPHS above show what actually happened between ball-top and roving operations in a large textile mill which adopted Warner & Swasey Pin Drafters. In addition to operational savings and less waste, the yarns produced are cleaner and of greater tensile strength for better-bodied fabrics.

Our Field Engineer in your territory can give further complete information on the

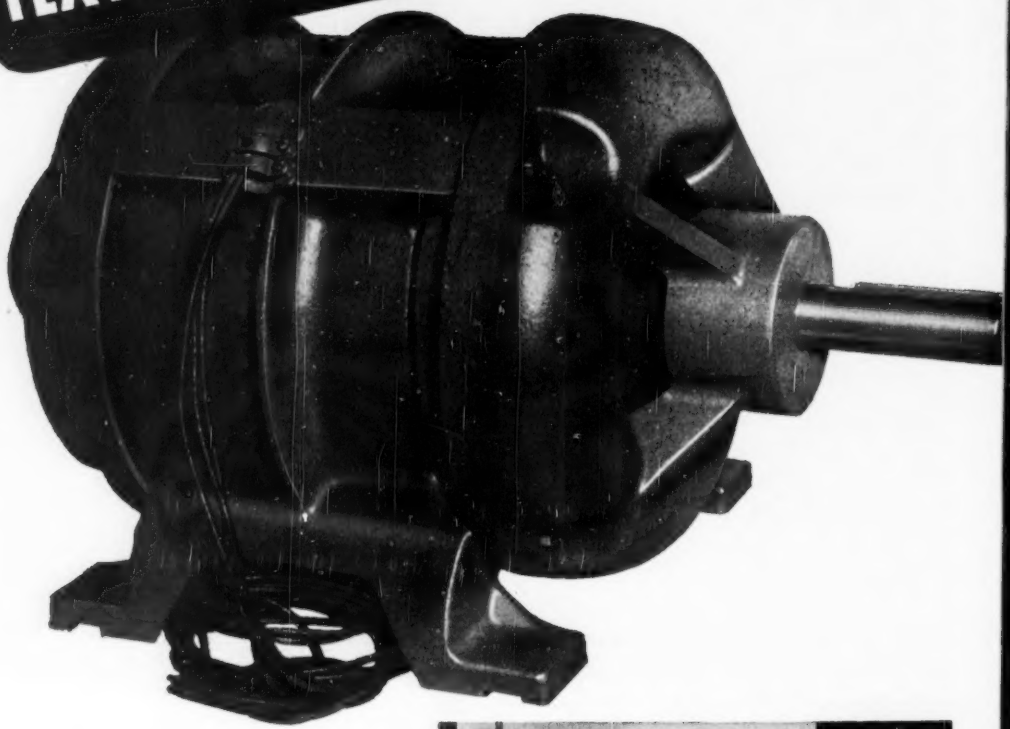
WARNER & SWASEY

Pin Drafter

WARNER & SWASEY
Cleveland
TEXTILE MACHINERY DIVISION

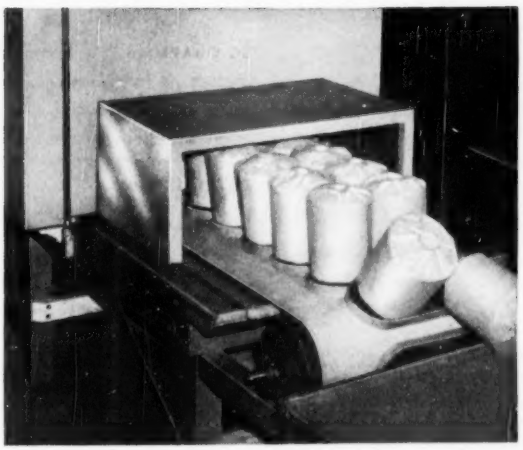
Warner & Swasey Branch Offices: **RIVULET MILL** Uxbridge, Mass. **6910 MARKET ST.** Philadelphia, Pa. **CANDLER BLDG.** Atlanta, Ga.

Quick-Clean TEXTILE MOTOR Sweeps



Faster Cake Drying and Twist Setting

Cutting cake drying and twist setting time in rayon mills is only one of the many advantages of Allis-Chalmers Dielectric Heaters. Because each strand is heated from the inside, heating and drying are uniform throughout the package. Quality is greatly improved. Large ovens and drying rooms are eliminated. You can increase capacity in the same floor space. Stock in process is reduced. Engineering and cost studies made without obligation. Ask your nearest Allis-Chalmers Sales Office or write the factory.



Texrope, Vari-Pitch and *Quick-Clean* are Allis-Chalmers trademarks.

Itself Clean!

Wide open with smooth interior surfaces to prevent accumulation of lint and dirt. New Sealed bearings need no attention for years, cannot throw oil or grease.

HERE IS THE IDEAL MOTOR for spinning frames, twisters and other textile applications. Big air passages in the end bells and wide clearance between end bells and frame allow powerful fans to sweep cooling air into the motor and right out again, carrying all lint and dirt with it. Coil ends are capped with plastic and surfaces are smooth and hard so foreign matter cannot settle.

Quick-Clean motors now also feature a sealed ball bearing. This new type bearing eliminates lubricant and lubrication costs for years. It cannot throw grease to catch lint and dirt or soil materials. It is safe from underlubrication and overlubrication. Ask your nearest Allis-Chalmers Sales Office about the new Quick-Clean Textile Motor today. Or write for the bulletin listed below. ALLIS-CHALMERS, 1054A SO. 70 ST. MILWAUKEE, WIS.

MATCH QUICK-CLEAN MOTORS WITH A-C STARTERS

This control was developed especially for dependable, safe starting of Quick-Clean motors. Other Allis-Chalmers control will give you dependable operation of all electrical equipment in your plant. Competent application engineers are always available at your nearby Allis-Chalmers Sales Office.

Send for Free Engineering Literature

Quick-Clean Motors, 51B6055
Allis-Chalmers Loom Motors, 51B7111
Texrope Drives, 20B6051
Vari-Pitch Automatic Sheave, 20P40
Dielectric Heater, 15B6431
Power Generating Equipment, Transformers, Circuit Breakers, Power Distribution Equipment, 25B6150

COMPLETE SERVICE — from power line to machine

ALLIS-CHALMERS

Originator of the Multiple V-Belt Drive for the Textile Industry

A-2969

LOOK AHEAD TO

The Finished Fabric

WHEN YOU CHOOSE YOUR WOOL OIL!

It's easy to underestimate the importance of the job a wool oil performs in your mill. Probably because the application of the oil is such a relatively simple operation.

But you'll never underestimate a wool oil's importance if you look ahead to the contributions it makes to every succeeding operation— from picking through finishing. For a good wool oil, properly applied, can take many of the kinks out of carding, spinning, knitting, storing, finishing and dyeing.

In fact, that's exactly what Proxol is already accomplishing in many important woolen mills in this country.

You'll get some new ideas on the meaning of top-notch performance when you check Proxol results.

Today—when smooth, trouble-free production is so vital—you owe it to yourself to give Proxol a thorough test. Do it now!

Procter & Gamble
Cincinnati, Ohio

CHECK THESE 6 PROXOL ADVANTAGES:

Stable Emulsions — easily applied

Increased Carding Efficiency — less waste, less fibre breakage, less static, no corrosion.

Increased Spinning Efficiency — fewer ends down.

Stronger, more uniform yarns

No Change in Storage — no heating in the bin, no odor or discoloration.

Easy Scouring — regardless of storage period — assurance of level piece dyeing.

PROCTER & GAMBLE
PROXOL
MADE IN U.S.A.

Proxol is made by the makers of Crate, the industry's leading, all-purpose textile soap

BROWN SPECIALIZED INSTRUMENTATION

FOR THE TEXTILE INDUSTRY

IS SETTING NEW STANDARDS FOR

HIGH-QUALITY, LOW-COST PRODUCTION

DRYING
PRINTING
SIZE PREPARATION
AIR CONDITIONING
HEATING & VENTILATING
COMPLETE SLASHER CONTROL
CONTINUOUS BLEACHING
MOISTURE REGAIN
WASTE DISPOSAL
TENTERING
DYEING

BROWN INSTRUMENTS — WORLD'S LARGEST ORGANIZATION FOR ADVANCED INSTRUMENTATION AND CONTROL — BELFIELD VALVES

BROWN Specialized Instrumentation goes far beyond the simple specification of an instrument to do a certain job. It includes engineering development and application knowledge focused to the needs of the Textile Industry . . . plus a nation-wide network of field engineers who take pride in the control systems they install and service.

Brown Control Systems are setting new records for outstanding performance throughout the industry . . . with a complete line of products for the measuring, recording and controlling of every important variable.

No matter what your operation, Brown Specialized Instrumentation is ready to help you do it better, faster and at lower cost. Call in your local Honeywell engineer for consultation without obligation . . . he is as near as your phone!

MINNEAPOLIS-HONEYWELL REGULATOR CO.
BROWN INSTRUMENTS DIVISION
4492 Wayne Ave., Philadelphia 44, Pa.
Offices in 73 principal cities of the United States, Canada and throughout the world

MINNEAPOLIS Honeywell — *Specialized Instrumentation* FOR THE TEXTILE INDUSTRY — BROWN INSTRUMENTS

think of Speed Control -and you think of Reeves

To insure perfect control of shrinkage of cloth, of whatever fabric is being preset with this new Van Vlaanderen Boil-Off Machine, five REEVES Speed Control units are used. A REEVES Motodrive varies the speed through the entire range, as desired, and four small REEVES Transmissions drive the four pairs of drums.

As pioneers in the field of speed control engineering, REEVES has "grown up" with the textile industry. In the many varied "steps" of processing yarn and the manufacture of cloth, the need for accurate variable speed control is a primary "must." The ability to change machine speeds for different kinds of yarn and fabric, or to vary temperature and moisture content, is absolutely essential for best results—and REEVES has kept pace with the industry's developments.

REEVES Speed Control, either manually or automatically operated, is accurate, infinitely variable. Speed changes are made instantly, without stopping the machine. Over 265,000 units now in service.

More REEVES Speed Control units are at work in textile plants throughout the country, than all other speed control devices put together. If speed control is involved, REEVES representatives and REEVES engineers know the industry's problems and how to solve them. Write for a man to call, or for new catalog T22a-3-N.

REEVES PULLEY COMPANY · COLUMBUS, INDIANA

Recognized Leader in the Specialized Field of Speed Control Engineering

ACCURATE · VARIABLE

Reeves Speed Control

GIVES THE RIGHT SPEED FOR EVERY JOB!

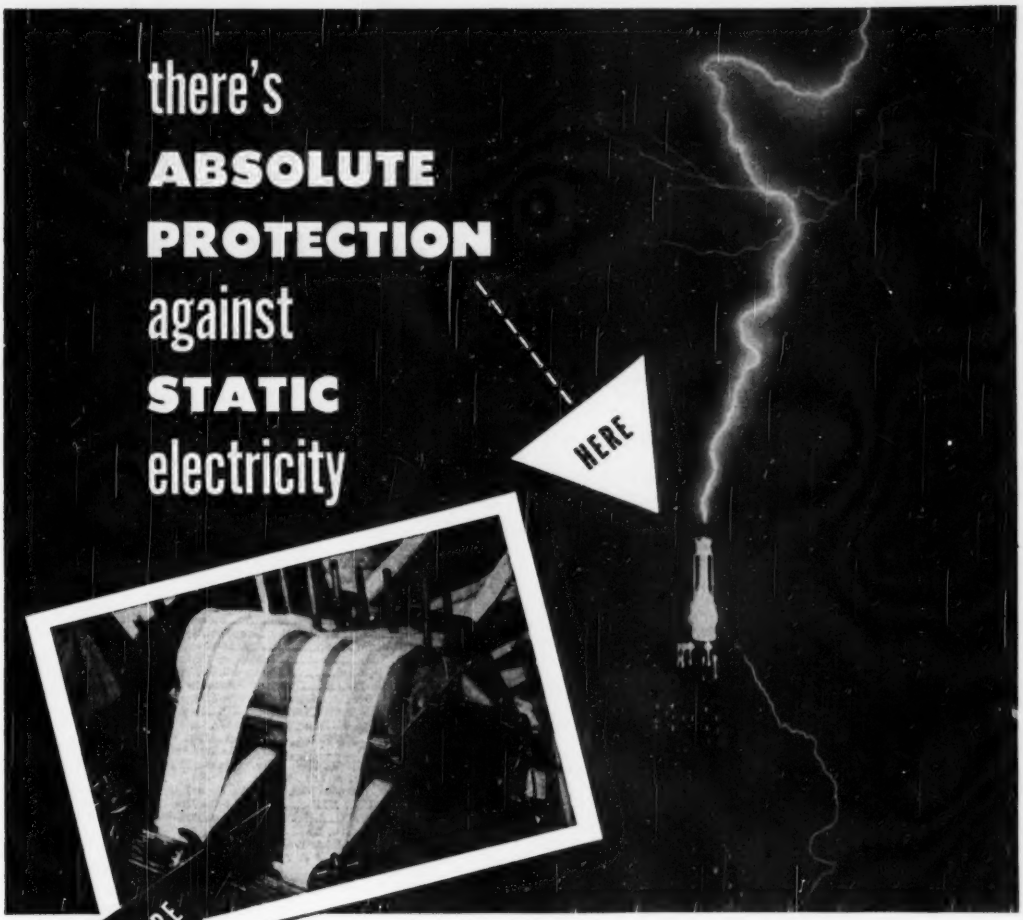
THE THREE BASIC REEVES UNITS

VARIABLE SPEED TRANSMISSION for providing infinite, accurate speed flexibility over a wide range—2:1 to 16:1. Sizes—fractional to 87 hp.

VARI-SPEED MOTOR PULLEY provides an instantly variable speed drive within 4:1 ratio for any constant speed motor. Sizes to 10 hp.

MOTODRIVE combines motor, speed varying mechanism and reduction gears in single unit. Speed variations 2:1 to 6:1 inclusive. Sizes to 20 hp.

there's **ABSOLUTE PROTECTION** against **STATIC** electricity



Today's architects and builders have the means to protect their creations from electricity on the rampage . . .

. . . and today's WORSTED manufacturers have the means to protect the quality of their products from mischievous electricity—STATIC that plays havoc with desirable yarn production. For Nopco's new, specifically developed lubricant —NOPCO* 1656-R—provides an anti-static oil that assures better WORSTED production.

Fibres treated with Nopco 1656-R remain static free throughout carding, gilling, combing and drawing—in spite of today's speeded up processes. Result: "Wild" and broken ends are avoided, and even-running yarn is assured.

Nopco 1656-R successfully replaces any conventional lubricant you are now using. It is applied in the same manner . . . no changes in equipment or methods are needed. Whatever your production system—American, Bradford or French—this remarkable new oil can be used with great advantage to produce HIGH QUALITY WORSTED YARNS economically.

Ask your Nopco representative for full information about 1656-R — or write to us directly.

NOPCO — EVOLVED THRU RESEARCH

NOPCO CHEMICAL COMPANY

Formerly National Oil Products Company

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Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.

*Reg. U. S. Pat. Off.

Hats off –to our

THE "WHO'S WHO" OF "SANFORIZED"

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AUSTRAL SILK & COTTON MILLS PTY. LIMITED.....Melbourne, Australia

AUSTRIA

F. M. HAEMMERLE.....Dornbrin, Austria

BELGIUM

ALSBERGE & VAN OOST.....Gand, Belgium

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COMPANHIA AMERICA FABRIL...Rua Candelaria 67, Rio de Janeiro, Brazil
COTONIFICIO RUDOLFO CRESPI.....Rua Javari 403, Sao Paulo, Brazil
S. A. INDUSTRIAS REUNIDAS F. MATARAZZO.....Sao Paulo, Brazil
SAO PAULO ALARGATAS, S.A.....Sao Paulo, Brazil

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CANBRI MANUFACTURING COMPANY LIMITED.....Ajax, Ont., Canada
DOMINION TEXTILE COMPANY, LTD.....Magog, Que., Canada
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ROBINSON COTTON MILLS, LIMITED, 183 George St., Toronto 2, Ont., Canada
WABASSO COTTON COMPANY LTD.....Three Rivers, Que., Canada
WOODS MANUFACTURING CO., LTD.....Welland, Ont., Canada

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JORGE HIRMAS H.....Santiago, Chile

COLOMBIA

TEJIDOS EL CONDOR, S.A.....Condor Mill, Medellin, Rep. of Colombia
COMPANIA COLOMBIANA DE TEJIDOS, Coltejer Mill, Medellin, Rep. of Colombia
FABRICA DE HILADOS Y TEJIDOS DEL HATO, Medellin, Rep. of Colombia
TEJIDOS DE OCCIDENTE, S.A.....Manizales, Rep. of Colombia

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CZECHOSLOVAKIA

CORPORATION USTI.....Ceska Trebova, Czechoslovakia
CORPORATION DVUR KRALOVE.....Haje, Czechoslovakia
CORPORATION LENINA.....Ruzomberok-Rybarpole, Czechoslovakia
CORPORATION NACHOD.....Nachod, Czechoslovakia

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BLOCH & ANDRESEN.....Copenhagen, Denmark

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SETFAST LIMITED.....3, College Green, Dublin, Eire

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GILLET-THAON.....23, Rue de Marignan, Paris 8e, France
MANUFACTURES HARTMANN & FILS.....Munster, Haut-Rhin, France
ETABLISSEMENTS SCHAEFFER & CIE., Pfastatt-le-Chateau, Haut-Rhin, France

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GEBRUDER BOGGERING, G.M.B.H.....Bocholt, Germany
CHRISTIAN DIERIG A.G.....Augsburg, Germany
BAUMWOLLINDUSTRIE ERLANGEN-BAMBERG A.G....Erlangen, Germany
AUGUST GEIGER, KOMM. GES.....Kirchheim-Teck, Germany
ULRICH GMINDER, G.M.B.H.....Reutlingen, Germany
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James Hardcastle & Co., Ltd.....Bradshaw Works, Near Bolton, England
Kirkpatrick Bros. Ltd.....Ballyclare, County Antrim, Northern Ireland
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RAINSHORE BLEACHING & DYEING CO., LTD., Norden Rochdale, Lancashire, England
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J. J. SCHOLTEN & ZONEN N.V.....Enschede, Holland
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REGGIANI MANIFATTURA, S.A.....Bergamo, Italy

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ACABADOS MEXICO, S.A.....Tlalpan, Mexico, D.F., Mexico
ATOYAC TEXTIL, S.A.....Puebla, Puebla, Mexico
COMPANIA INDUSTRIAL MANUFACTURERA DE ATLIXCO, Atlixco, Puebla, Mexico
COMPANIA INDUSTRIAL DE PARRAS, S.A.....Parras, Coahuila, Mexico
COMPANIA INDUSTRIAL VERACRUZANA, S.A., Ciudad Mendoza, Veracruz, Mexico
EL GLOBO S.A.....Atzcapotzalco, Mexico, D.F., Mexico
NACIONAL TEXTIL MANUFACTURERA, S.A...Guadalajara, Jalisco, Mexico
C. NORIEGA Y CIA SUCS. S en C.....Mexico, D.F., Mexico
TEXTILES MONTERREY, S.A.....Monterrey, Nuevo Leon, Mexico

NORWAY

TEKSTILFOREDLING A/S—TEFAS.....Oslo, Norway

partners

Listed on these pages are some of the most illustrious names we know.

They are our partners, "Sanforized" licensees.

These firms have made available to the trade fabrics of *greater value.*

These fabrics have brought to consumers *better washable garments.* Longer lasting with fit which endures for the life of the garments.

Last year, these firms produced over TWO BILLION YARDS of "Sanforized"-labeled cottons.

Once again, we raise our hats to our partners.

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MAB — Box 278, Malmoe, Sweden
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SWITZERLAND

GUGELMANN & CIE., A.G. — Langenthal, Switzerland
HABIS-TEXTIL A.G. — Flawil, Switzerland
HEBERLEIN & CO., A.G. — Wattwil, Switzerland
A.—G. A. & R. MOOS — Weisslingen, Switzerland
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ARIDA BROTHERS CORPORATION — Tripoli, Lebannon, Syria

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AMERICAN FINISHING COMPANY — Memphis, Tenn.
APONAUG MANUFACTURING CO. — Kosciusko, Miss.
APPLETON COMPANY, INC. — Anderson, S. C.
THE APPONAUG COMPANY—Division of Mills, Incorporated. — Apponaug, R. I.
ARMS TEXTILE MANUFACTURING CO. — Manchester, N. H.
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THE ASPINOOK CORPORATION — Jewett City, Conn.
AVONDALE MILLS — Alexander City, Ala.
AVONDALE MILLS — Pell City, Ala.
AVONDALE MILLS — Sylacauga, Ala.
JOS. BANCROFT & SONS CO. — Wilmington, Del.
BELLMAN BROOK BLEACHERY CO. — Fairview, N. J.
BRADFORD DYEING ASSOCIATION (USA) — Westerly, R. I.
BROWN MANUFACTURING CO. — Concord, N. C.
BURLINGTON MILLS CORPORATION, Cramerton Mills Division. — Cramerton, N. C.
CANTON COTTON MILLS — Canton, Ga.
CHICOPEE MANUFACTURING CORPORATION — Chicopee Falls, Mass.
CLEARWATER MANUFACTURING CO. — Clearwater, S. C.
COLD SPRINGS BLEACHERY, INC. — Yardley, Pa.
CONE FINISHING CO. — Greensboro, N. C.
CONE MILLS CORPORATION—Cliffside Plant — Cliffside, N. C.
CONE MILLS CORP.—White Oak Mill — Greensboro, N. C.
CONE MILLS CORP.—Proximity Mill — Greensboro, N. C.
CONE MILLS CORPORATION—Revolution Division — Greensboro, N. C.
CONE MILLS CORPORATION—Salisbury Plant — Salisbury, N. C.
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CRANSTON PRINT WORKS COMPANY — Webster, Mass.
CROMPTON-SHENANDOAH CO. — Waynesboro, Va.
CRYSTAL SPRINGS BLEACHERY — Chickamauga, Ga.
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DEMPSEY BLEACHERY & DYE WORKS CORP. — Pawtucket, R. I.
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THE ERWIN COTTON MILLS COMPANY — Erwin, N. C.
THE ERWIN COTTON MILLS COMPANY — Stonewall, Miss.
EXETER MANUFACTURING COMPANY — Exeter, N. H.
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FAIRFOREST FINISHING CO. — Spartanburg, S. C.
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GREAT FALLS BLEACHERY & DYE WORKS, INC. — Somersworth, N. H.
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GRANITEVILLE COMPANY—Sibley-Enterprise Division — Augusta, Ga.
HAMPTON PRINT WORKS DIV.—(The Aspinook Corp.) — Easthampton, Mass.
HARTSVILLE PRINT & DYE WORKS — Hartsville, S. C.
HIGHLAND PARK MANUFACTURING CO. — Charlotte, N. C.
INDUSTRIAL COTTON MILLS CO., INC. — Rock Hill, S. C.
KERR BLEACHING & FINISHING WORKS, INC. — Concord, N. C.
LANETT BLEACHERY & DYE WORKS — West Point, Ga.
LANE COTTON MILLS COMPANY — New Orleans, La.
LONSDALE COMPANY — Lonsdale, R. I.
LOWELL BLEACHERY, INC. — St. Louis, Mo.
LOWELL BLEACHERY SOUTH — Griffin, Ga.
ANDREW Y. MICHIE & SONS CO. — Philadelphia, Pa.
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MOORESVILLE MILLS — Mooresville, N. C.
MOUNT HOPE FINISHING COMPANY — North Dighton, Mass.
NASHUA MANUFACTURING COMPANY — Nashua, N. H.
NATIONAL DYEING & FINISHING CORPORATION — Culver City, Calif.
NEW BRAUNFELS TEXTILE MILLS — New Braunfels, Texas
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PACIFIC MILLS — Lyman, S. C.
PACOLET MANUFACTURING CO. — New Holland, Ga.
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PEPPERELL MANUFACTURING COMPANY — Lindale, Ga.
PILOT MILLS CO. — Raleigh, N. C.
PEPPERELL MANUFACTURING CO.—Alabama Division — Pepperell, Ala.
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RENFREW BLEACHERY—(Brandon Corp.) — Travellers Rest, S. C.
RIEGEL TEXTILE CORPORATION—Ware Shoals Division — Ware Shoals, S. C.
RIEGEL TEXTILE CORPORATION—Trion Division — Trion, Ga.
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ROBERTSON BLEACHERY & DYE WORKS — New Milford, Conn.
ROCK HILL PRINTING & FINISHING CO. — Rock Hill, S. C.
THE RUSSELL MFG. CO., INC. — Alexander City, Ala.
SOUTHERN BLEACHERY & PRINT WORKS, INC. — Taylors, S. C.
SAYLES-BILTMORE BLEACHERIES, INC. — Biltmore, N. C.
PHILIP L. SHEERR & SONS — Frankford, Philadelphia, Pa.
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SAYLES FINISHING PLANTS, INC. — Saylesville, R. I.
SOUTHBRIDGE FINISHING COMPANY — Southbridge, Mass.
THE SPRINGDALE FINISHING CO., INC. — Canton, Mass.
SPRINGS COTTON MILLS (Grace Bleachery) — Lancaster, S. C.
STANDARD BLEACHERY & PRINTING CO., INC. — Carlton Hill, N. J.
J. P. STEVENS & CO., INC.—Delta Company Division — Frankford, Phila., Pa.
J. L. STIFEL & SONS, INC. — Wheeling, W. Va.
SUMMERDALE DYEING & FINISHING WORKS — Holmesburg, Pa.
SWIFT MANUFACTURING COMPANY — Columbus, Ga.
TEXAS TEXTILE MILLS — McKinney, Texas
TEXAS TEXTILE MILLS — Waco, Texas
TEXTRON-SOUTHERN, INC.—Finishing Div. — Anderson, S. C.
THOMASTON COTTON MILLS — Thomaston, Ga.
UNION BLEACHERY DIV. (The Aspinook Corp.) — Greenville, S. C.
THE UNITED STATES FINISHING COMPANY — Norwich, Conn.
THE UTICA WILLOWVALE BLEACHING CO. — Chadwicks, N. Y.
WERTHAN BAG CORPORATION — Nashville, Tenn.
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URUGUAY

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Cluett, Peabody & Co., Inc. permits use of its trade-mark "Sanforized," adopted in 1930, only on fabrics which meet this company's rigid shrinkage requirements. Fabrics bearing the trade-mark "Sanforized" will not shrink more than 1% by the Government's standard test.

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IT'S A MATTER OF FACT . . .

Celanese* staple fiber

Boosts

the sale of rayon suits

The crisp, springy hand that men look for—

. . . the wrinkle-resistance that will keep a suit neat—

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. . . the variety of patterns obtained by cross-dyeing.

All are qualities contributed by Celanese staple fiber of acetate rayon.

To insure their success be sure your rayon suitings contain a good percentage of Celanese staple fiber.

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Celanese* staple fiber of acetate rayon

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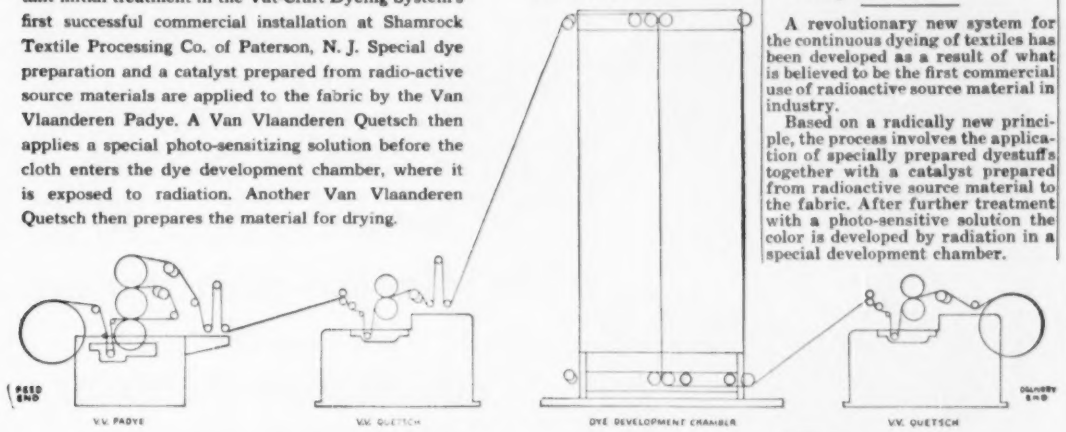
In Step With Progress

HOW VAN VLAANDEREN MODERN EQUIPMENT IS USED IN REVOLUTIONARY VAT-CRAFT DYEING SYSTEM

The Van Vlaanderen PADYE was chosen by Vat-Craft Corporation and Proctor and Schwartz for the important initial treatment in the Vat-Craft Dyeing System's first successful commercial installation at Shamrock Textile Processing Co. of Paterson, N. J. Special dye preparation and a catalyst prepared from radio-active source materials are applied to the fabric by the Van Vlaanderen Padye. A Van Vlaanderen Quetsch then applies a special photo-sensitizing solution before the cloth enters the dye development chamber, where it is exposed to radiation. Another Van Vlaanderen Quetsch then prepares the material for drying.

Schematic drawing below of the Vat-Craft System showing how Van Vlaanderen equipment is used.

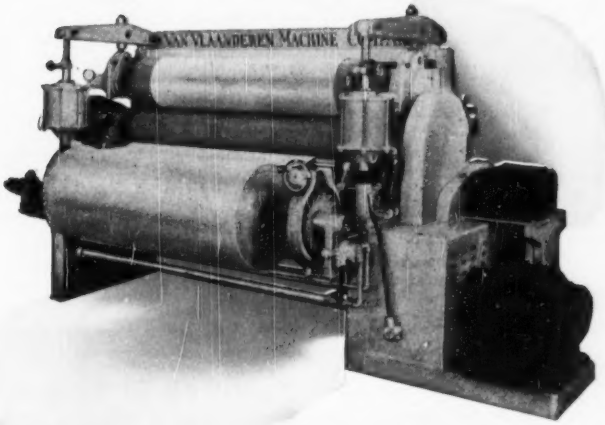


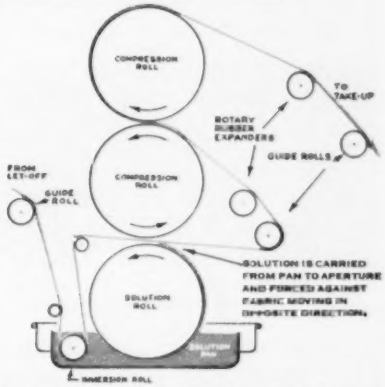
Atomic Energy Used in Dyeing Of Textiles

Initial Run of Continuous Vat Dyeing System Is Success. Atomic Product Used as Catalyst.

A revolutionary new system for the continuous dyeing of textiles has been developed as a result of what is believed to be the first commercial use of radioactive source material in industry.

Based on a radically new principle, the process involves the application of specially prepared dyestuffs together with a catalyst prepared from radioactive source material to the fabric. After further treatment with a photo-sensitive solution the color is developed by radiation in a special development chamber.





Shown above is the principle of operation of the Van Vlaanderen Padye. Notice how solution is carried from pan and forced into the goods by the bottom roll which revolves in the opposite direction to the travel of the cloth.

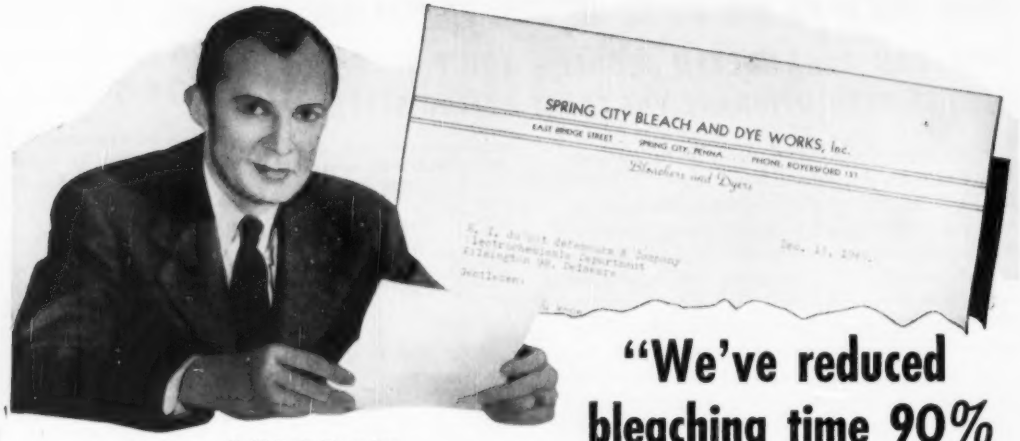
SUPERIOR PENETRATION

is provided by the Van Vlaanderen Padye because of its design. Here's why it is different and better. The bottom roll is driven independently and variably in a direction opposite to the travel of the goods. This carries solution from the pan into the aperture. Through centrifugal force and the momentum imparted to the solution carried by the roll it is forced into every fiber as the goods pass in an opposite direction through the restricted space between rolls. ¶ After penetration of the cloth by the solution the goods pass between compression rolls for further penetration and removal of excess liquid. ¶ The Van Vlaanderen Quetsches shown in the diagram above are heavy-duty in every way, with pressure up to three tons.

VAN VLAANDEREN MACHINE COMPANY

370 Straight Street, Paterson 3, New Jersey • Cable address Vlaanderen, Paterson, U.S.A.

World's largest manufacturer of machines for processing modern fabrics

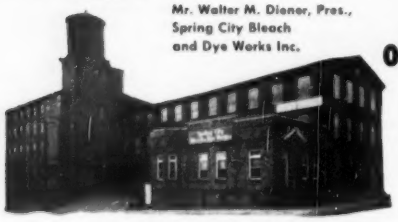


Mr. Walter M. Diener, Pres., Spring City Bleach and Dye Works Inc.

"We've reduced bleaching time 90%

on light- and medium-weight cotton knits

with our Du Pont CONTINUOUS PEROXIDE BLEACHING SYSTEM"



Spring City Bleach and Dye Works at Spring City, Pennsylvania.

Du Pont Continuous Peroxide Bleaching System in operation at Spring City bleachery.

In a recent letter, Walter M. Diener, President of the Spring City Bleach and Dye Works says:

"The first continuous range for peroxide bleaching of cotton knit goods was installed in our plant in July 1947. This range has a designed capacity of 2000 pounds per hour, and we have been able to average this rate of production consistently. In the past three years many millions of yards have been processed speedily and economically.

"With our Du Pont range, we have been able to reduce bleaching time from about 20 hours to less than 2 hours, operating on light- and medium-weight fabrics. All operations on the range can be handled easily by two men.

"The results obtained have met with the approval of our mills and customers, and are considered satisfactory in every respect."

TO BLEACH MORE GOODS QUICKLY AND ECONOMICALLY

There's a Du Pont System to meet your specific requirements. Du Pont technical service men will help you select equipment and start up your process. Just write E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Dept., Wilmington 98, Delaware.

OUTSTANDING RESULTS LIKE THESE are being duplicated everywhere the Du Pont Continuous Bleaching System is used. Why not check its excellent possibilities for your plant right now? Send the coupon below for our new book filled with illustrations and information.

Tune in Du Pont "Cavalcade of America" Tuesday nights—NBC coast to coast

DU PONT
CONTINUOUS PEROXIDE BLEACHING

DU PONT

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department, Wilmington 98, Del.

Please send me more information about Du Pont Continuous Peroxide Bleaching Systems.

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Firm_____

Street & No._____

City_____ State_____

On this Cocker Rayon Slasher... JOHNSON JOINTS

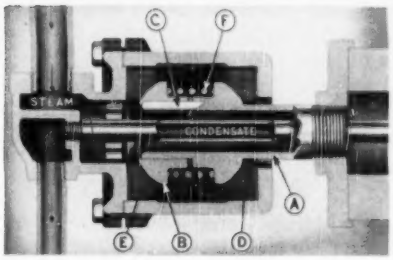
the final touch to fine machinery

This Cocker Slasher bears the mark of long experience in building fine machinery for the textile industry. Not the least of its time-proved refinements are those Johnson Rotary Pressure Joints.

Cocker Machine & Foundry Company first purchased Johnson Joints in 1933. Today they are furnished as standard equipment on both the company's seven- and nine-cylinder rayon slashers.

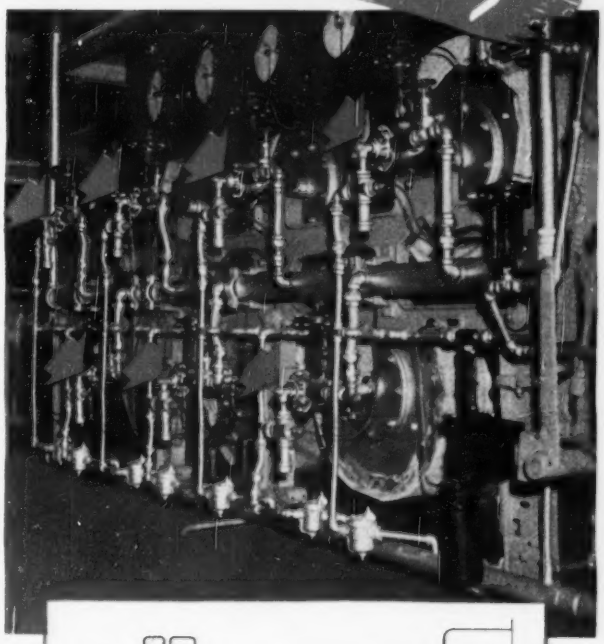
This adoption of the Johnson Joint by so many machinery manufacturers establishes pretty well that any machinery is better machinery with Johnson Joints. They boost efficiency in many ways, eliminate many causes of trouble, and can save enough in reduced maintenance alone to pay the cost of switching over.

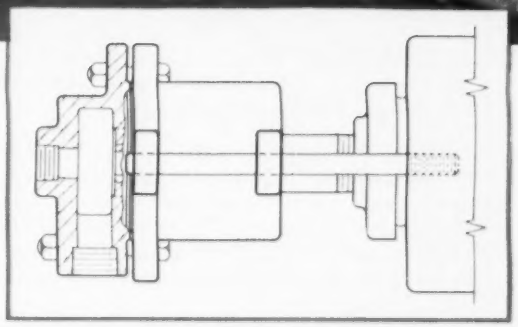
Write for new literature which has all the money-saving facts.



Packless, Self-Lubricating, Self-Adjusting, Self-Aligning

Cross section of Johnson Joint shows how nipple (A) is connected to roll or drum. Sliding collar (B) is keyed to nipple at (C), but slides over it loosely so pressure can fill entire housing. This pressure is sealing force, presses seal ring (D) tightly against nipple. Both seal and bearing ring (E) are of special carbon graphite which eliminates packing and lubricating. Spring (F) is for initial seating only. Type B Joint shown; other styles and sizes for every dry can, slasher and sanforizer.





Seven cylinder rayon slasher manufactured by Cocker Machine and Foundry Co., showing Johnson Joints furnished as standard equipment. Drawing below shows special head design developed for this manufacturer. Note lugs on body to provide simple rod support.

Product of The **Johnson Corporation**

815 Wood St., Three Rivers, Michigan

ROTARY PRESSURE JOINTS • COMPRESSED AIR SEPARATORS AND AFTERCOOLERS
DIRECT OPERATED SOLENOID VALVES • "INSTANT" STEAM WATER HEATERS

Southeastern Engineering Company
West Point, Georgia

February 6, 1950

TO OPERATING MANAGEMENT:

THE TEXTILE INDUSTRY

U. S. A.

Gentlemen:

When a new or improved textile production machine pays for itself within 3 to 5 years, mill men usually consider it a good investment.

Our organization has developed a service program which in 38 mills has proved to give more than several times a 100% return the first year.

Kindly permit us in this letter to introduce our company and our service to you:

SOUTHEASTERN ENGINEERING CO. — An engineering and service concern specializing in the reduction and control of material waste, operating by training production supervisors and by periodic checks of conditions in the mill.

PURPOSE — Many supervisors have come to accept excessive waste, and thus high waste percentages, as being normal and necessary --- we do not agree with this theory. Our purpose is to train operating supervisors: On the Cost of Waste to Your Plant; in the Reduction of Waste; the Handling of Waste; the Reporting of Waste; and the Controlling of Waste.

TIME INVOLVED — A three-week period, as outlined below. Two weeks of conference and one week of study by your men in their departments.

SOME RESULTS ACHIEVED — Mills totaling nearly a million and a half spindles have used our services, including plants processing cotton, wool, and synthetics. Annual savings range from $25,000 (small plants) to over $100,000. A list of mills served is available on request. These mills will answer your inquiries concerning the results of our program.

PUTTING WASTE PROGRAM IN EFFECT AT YOUR OWN PLANT — Group waste training conferences are held at your plant for all operating executives and production supervisors through the level of secondhands. Average number of men in each group --- fifteen.

First Conference Week: Four hours per day for four consecutive days. Definite methods and procedures for reducing and controlling waste are learned. Actual mill problems are used for demonstration purposes.

Intermission Week: Each supervisor attending conference selects, or is assigned, one type of waste for study. Each waste problem is investigated and analyzed to develop tentative plans for reducing and controlling the waste.

Second Conference Week: Four hours per day for four consecutive days. Each waste problem brought in is put on the blackboard and thoroughly discussed, with suggestions for improvement made, and final plans formulated for reducing and controlling the waste.

PRINCIPLES LEARNED IN CONFERENCE SESSIONS — At the end of the third week your men know improved principles of waste reduction, waste handling, waste reporting, and waste control. They can analyze and correct (subject to your own quality requirements) any future waste problem arising in their departments. They return to their jobs to put into effect the plans made in the conferences.

Note: At this point, in the average mill, every type of controllable waste has been worked on; thus the mill superintendent can immediately calculate the dollars and cents expected savings for the forthcoming 12-month period. A manual of standard operating procedure containing all data relative to your waste program is prepared.

COST OF SERVICE — Can be figured two ways: First, $100 per man attending conference, payable only after you are satisfied with the results secured. Or second, we will accept the job on a basis of 10% of the first 12-months savings made after your waste reduction program is started. This will be based upon your own records and your own accounting --- and is not payable until the end of the period. On the $100 per man basis, we will guarantee you a savings the first year of at least five times the cost of the program.

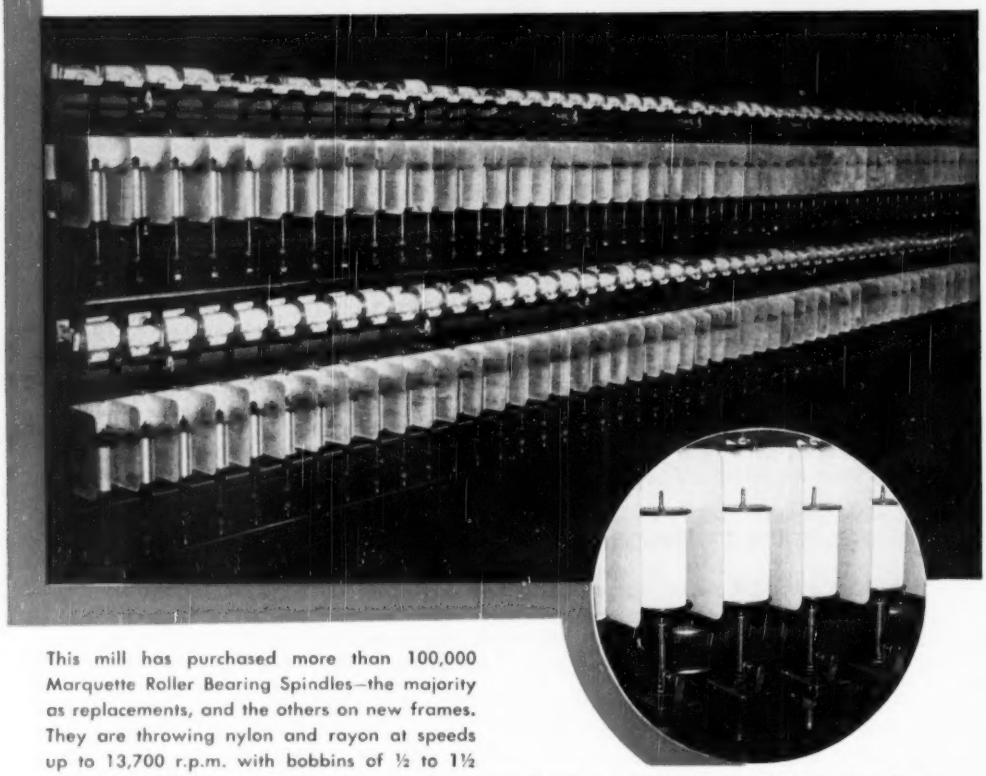
FOLLOW-UP SERVICE FOR FIRST 12 MONTHS — Having trained your men in methods of reducing and controlling waste, we visit your plant following the program for a 12-months period to aid in putting the program into effect and to check its progress. Inasmuch as our invoices are payable only upon your complete satisfaction with our work, it is to our advantage and yours to render this follow-up service without charge this first year.

COST OF WASTE TO YOU IN YOUR PLANT — Waste at any time is an important item of cost to any mill. This is particularly true today with the price of raw material at its present high level and the return from salable waste at such a low level. You can quickly calculate what waste has cost you annually. A small percentage reduction in overall waste, in the average mill, results in annual savings of thousands of dollars.

If you would care to have a brochure we have prepared on waste reduction and control, and a list of mills we have served, we shall be glad to send them without obligation. If you would like to have our representative give you additional details, we shall be happy to visit with you by appointment. Just drop us a line on your company stationery.

Sincerely yours,
SOUTHEASTERN ENGINEERING CO.
Ben H. Crawford

Marquette ROLLER BEARING SPINDLES *with* FULL-FLOATING FOOTSTEP BEARING *For Cotton, Rayon, Nylon, Wool, Worsted*



This mill has purchased more than 100,000 Marquette Roller Bearing Spindles—the majority as replacements, and the others on new frames. They are throwing nylon and rayon at speeds up to 13,700 r.p.m. with bobbins of ½ to 1½ pound capacity.

By operating at higher speeds, with larger packages and reduced power consumption, this mill is getting **more yarn at lower cost.** You too can modernize your old frames with Marquette Roller Bearing Spindles . . . or you can specify them on new frames. For a test installation, contact our home office or one of our representatives.

The Marquette METAL PRODUCTS CO.

CLEVELAND 10, OHIO

SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

PROTECTED BY U. S. AND FOREIGN PATENTS, AND PATENTS PENDING

Representatives:

BYRD MILLER, WOODSIDE BLDG., GREENVILLE, S. C.
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WILLIAM P. RUSSELL, BOX 778, ATLANTA, GEORGIA
JOHN J. HALLISSY, 68 LIVINGSTON AVE., LOWELL, MASS.
IAN M. HALDANE & COMPANY, P. O. BOX 84, LONDON, ONT.

Also Manufacturers of: HYDRAULIC GOVERNORS • FUEL OIL PUMPS • FUEL OIL INJECTORS
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • PRECISION PARTS AND ASSEMBLIES

Textile Industries

Vol. 114 • No. 2 • Feb. 1950

The Welfare (or Poorhouse) State

"I place economy among the first and most important virtues, and public debt as the greatest of dangers to be feared . . . To preserve our independence, we must not let our rulers load us with perpetual debt . . . We must make our choice between economy and liberty or profusion and servitude . . .

"If we run into such debts, we must be taxed in our meat and drink, in our necessities and our comforts, in our labors and in our amusements . . . If we can prevent the Government from wasting the labors of the people, under the pretense of caring for them, they will be happy."—Thomas Jefferson.

THESE sentiments expressed by one of the greatest Americans have been likewise shared by every other great statesman. It is the petty politician, whether in high position or low, who ignores these fundamental principles and is concerned only with turning the current whims and excesses of the people to his own advantage. Jefferson, a truly wise man, foresaw with amazing clarity the problems confronting the new government he had been so helpful in establishing.

Jefferson was not alone in his concern about the people falling into the clutches of spendthrifts. Benjamin Franklin, another great and wise American, was said to have been asked by a lady at the conclusion of the deliberations of the Constitutional Convention, "What kind of government have we got, Dr. Franklin?" Franklin replied, "A Republic, if we can keep it."

In a republican form of government, the people are sovereign, and only delegate to those who temporarily rule them such authority as is absolutely necessary for the conduct of a wise and prudent government. Unhappily, governments will not be wise and prudent, except under constant restraint by the people. In a republican form of government the people are their own masters, and must provide for their own welfare.

Providing for one's own welfare is never as popular a political doctrine as having someone else provide, and free peoples from time immemorial have been losing their freedom after painfully and bloodily gaining it, by leaning too much on their constituted governments for those things which they must necessarily provide for themselves.

There is nothing whatever new about the idea of the welfare state. It is as old as history, and one of the earliest historical records of such a welfare adventure can serve as a horrible example of them all. A highly respected authority gives the following vivid account of the first known adventure in state welfare among a civilized people.

"Behold, there come seven years of great plenty throughout all the land of Egypt: and there shall arise after them seven years of famine; and all the plenty shall be forgotten in the land of Egypt; and the famine shall consume the land; and the plenty shall not be known in the land by reason of that famine following; for it shall be very grievous . . . Now therefore let Pharaoh look out a man discreet and wise, and set him over the land of Egypt. Let Pharaoh do this, and let him appoint officers over the land, and take up the fifth part of the land of Egypt in the seven plenteous years. And let them gather all the food of those good years that come, and lay up corn under the hand of Pharaoh, and let them keep food in the cities. And that food shall be for store to the land against the seven years of famine, which shall be in the land of Egypt; that the land perish not through the famine . . .

"And the thing was good in the eyes of Pharaoh, and in the eyes of all his servants . . . And Pharaoh said unto Joseph, I am Pharaoh, and without thee shall no man lift up his hand or foot in all the land of Egypt. . . .

"And Joseph went out from the presence of Pharaoh, and went throughout all the land of Egypt. And in the seven plenteous years the earth brought forth by handfuls. And he gathered up all the food of the seven years, which were in the land of Egypt, and laid up the food in the cities: the food of the field, which was round about every city, laid he up in the same. And Joseph gathered corn as the sand of the sea, very much, until he left numbering; for it was without number . . .

"And the seven years of plenteousness, that was in the land of Egypt, were ended. And the seven years of dearth began to come, according as Joseph had said: and the dearth was in all lands; but in all the land of Egypt there was bread. And when all the land of Egypt was famished, the people cried to Pharaoh for bread: and Pharaoh said unto all the Egyptians, Go unto Joseph; what he saith to you, do. And the famine was over all the face of the earth: and Joseph opened all the storehouses, and sold unto the Egyptians; and the famine waxed sore in the land of the Egyptians; and the famine waxed sore in the land of Egypt. And all countries came into Egypt to Joseph for to buy corn; because that the famine was so sore in all lands . . .

"And there was no bread in all the land; for the famine was very sore, so that the land of Egypt and all the land of Canaan fainted by reason of the famine. And Joseph gathered up all the money that was found in the land of Egypt, and in the land of Canaan, for the corn which they bought: and Joseph brought the money into Pharaoh's house. And when money failed in the land of Egypt, and in the land of Canaan, all the Egyptians came unto Joseph, and said, Give us bread: for why should we die in thy presence? for the money faileth.

"And Joseph said, Give your cattle; and I will give you for your cattle, if money fail. And they brought their cattle unto Joseph: and Joseph gave them bread in exchange for horses, and for the flocks, and for the cattle of the herds, and for the asses: and he fed them with bread for all their cattle for that year. When that year was ended, they came unto him the second year, and said unto him, We will not hide it from my lord,

Reduces Rayon 'Seconds'

'Hard Size' is minimized by a slower congealing warp size

Try a quick run-off in your mill. You'll find that **SPUNJEL** – a specially prepared warp sizing gum for spun rayon – will not congeal or set-up in the feed line or in the size box during normal operation. It was developed to minimize imperfection rejects caused by 'hard size.'

Photo courtesy of JANTZEN

SPUNJEL can also be worked into your present formula to greatly minimize 'set marks.' Its high adhesiveness and strong, flexible surface film actually increases the tensile strength of the yarn.

National
STARCH PRODUCTS

Address: 270 Madison Ave., New York 16, Boston, Philadelphia, Atlanta, Indianapolis, Chicago, San Francisco and other principal cities. In Canada National Adhesives (Canada) Ltd., Toronto and Montreal

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We'd like to test these NATIONAL Textile Specialties and Starches:

- ☐ Please send test samples
- ☐ Have a representative call
- ☐ SPUNJEL (described above)
- ☐ AMBERTEX M for screen and machine printing
- ☐ FLOTEX to replace natural printing gums
- ☐ FLOCK ADHESIVE 970 for chenille printing
- ☐ FARILON for Rapidogen printing and backfilling
- ☐ FIBERJEL V for filament viscose sizing
- ☐ CLEARFILM for bright, lustrous finishes on cotton and rayons
- ☐ VAT THICKENER 36 for rayon and cotton

Mr _____

Company _____

Address _____

City _____ Zone _____ State _____

how that our money is spent; my lord also hath our herds of cattle; there is not ought left in the sight of my lord, but our bodies, and our lands: wherefore shall we die before thine eyes, both we and our land? buy us and our land for bread, and we and our land will be servants unto Pharaoh: and give us seed, that we may live, and not die, that the land be not desolate.

"And Joseph bought all the land of Egypt for Pharaoh; for the Egyptians sold every man his field, because the famine prevailed over them: so the land became Pharaoh's.

"And as for the people, he removed them to cities from one end of the borders of Egypt even to the other end thereof . . . Then Joseph said unto the people, Behold, I have bought you this day and your land for Pharaoh: lo, here is seed for you, and ye shall sow the land. And it shall come to pass in the increase, that ye shall give the fifth part unto Pharaoh, and four parts shall be your own, for seed of the field, and for your food, and for them of your households, and for food for your little ones.

"And they said, Thou hast saved our lives: let us find grace in the sight of my lord, and we will be Pharaoh's servants."

This same story has been repeated dozens of times that we know about, and probably thousands of times that no historian bothered to record. In brief, there was a depression in Egypt. The land had brought forth plentifully for seven years, but the Egyptians were too shiftless or lazy or indifferent to save up for themselves, and depended on their government to do it. The government appointed a dictator with arbitrary power to confiscate and conserve the wealth of the plentiful years to use it as a means of enslaving the people in the lean years. It is the old familiar story of what happens to people who depend on the government for their welfare instead of on themselves.

In every age and in every nation there are always specious casuists who argue plausibly about the advantages of letting the government do these things that endless experience teaches us the government can't do, and the individual must, and throughout all history we can not recall a single instance where the people threw the burden of their own responsibilities upon the government that slavery and poverty did not result. It will be no different in this country.

NEWS in BRIEF

Standardized Textiles for Military Use. The United States, Canada, and Britain are collaborating on military standardization of equipment including guns, planes, and such quartermaster items as textiles, uniforms, tents, blankets, and parachutes. The new agreement provides for an open exchange of technical information, standards, and specifications. The agreement does not contemplate identical uniforms for military forces of the three governments.

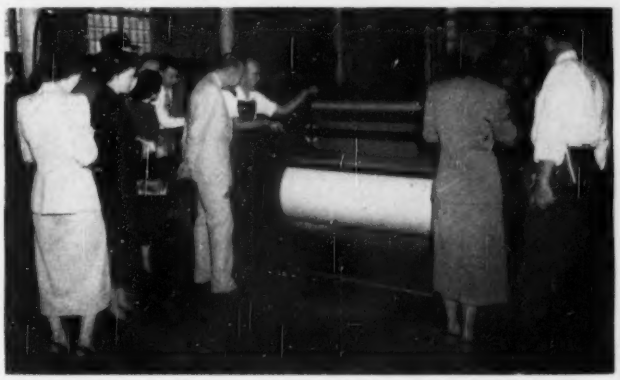
U. S. to Study Japanese Textiles. The board of directors of the American Cotton Manufacturers Institute have agreed to cooperate with British cotton manufacturers in sending a fact-finding mission to Japan to study the Japanese textile industry.

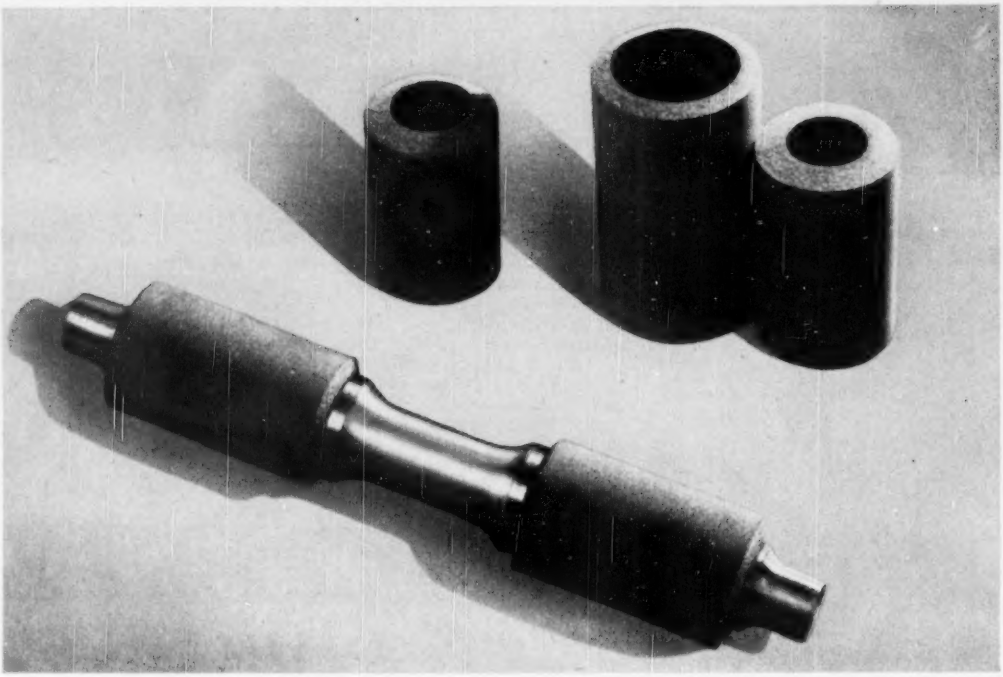
Increase in World Wool Production. Estimated world wool production in 1949-1950 season is 10 million pounds above last year. Output of apparel wool is to increase 2%, and carpet wool is to increase 3%. According to estimates, world use of apparel wool will probably exceed production.

Good Business Forecast. Increased production, greater employment and better business prospects prevail in the cotton textile industry at the opening of the new year, with trade conditions vastly improved from those existing a year ago, W. Ray Bell, president of The Association of Cotton Textile Merchants of New York, states. As a consequence of market changes in the past six months, good results are already

TEACHERS STUDY INDUSTRY

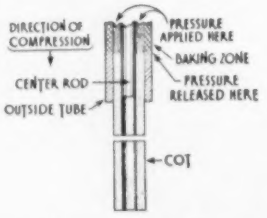
More than 125 teachers of the Leakesville, N. C., schools participated recently in an "Industry in Action" educational workshop sponsored jointly by Textile Information Service and the North Carolina Department of Public Instruction, with the cooperation of Fieldcrest Mills. Purpose of the project was to help the teachers "vivify" their teaching through a firsthand knowledge of how scientific and other principles are put to practical everyday use by modern industry.





SPIN QUALITY YARN AT LOW COST
with Armstrong's Cork Cots

EXTRUSION PROCESS PRODUCES SEAMLESS CORK COTS



Armstrong's Cork Cots have no structural weakness to cause premature breakdown. Each cot is uniform in density from inside to outside, from end to end. Each compresses evenly, spins stronger, more uniform yarn.

Quality yarn at low cost—that's what you get when you spin on Armstrong's Cork Cots. The naturally high friction of cork is made absolutely uniform across the entire traverse by Armstrong's exclusive extrusion process. Hence these cots grip fibers evenly and spin uniform, top-quality yarn.

Beside spinning quality yarn, Armstrong's Cork Cots are economical to use. They are low in first cost. And their preglued, seamless construction permits important savings in roll shop assembly time. Added to this is the over-all saving in roll covering material and labor costs made possible by their front line service life of two to three years.

Get the whole story on Armstrong's Cork Cots from your Armstrong representative today or write Armstrong Cork Company, Textile Products Department, 3602 Arch Street, Lancaster, Penna. Available for export.

ACCOTEX IS A REGISTERED TRADE-MARK.

Better running work . . . more poundage

ARMSTRONG'S CORK COTS

ACCOTEX COTS • ACCOTEX APRONS

substantially guaranteed for the first quarter of 1950, and there is strong likelihood that they will continue in the second quarter and beyond.

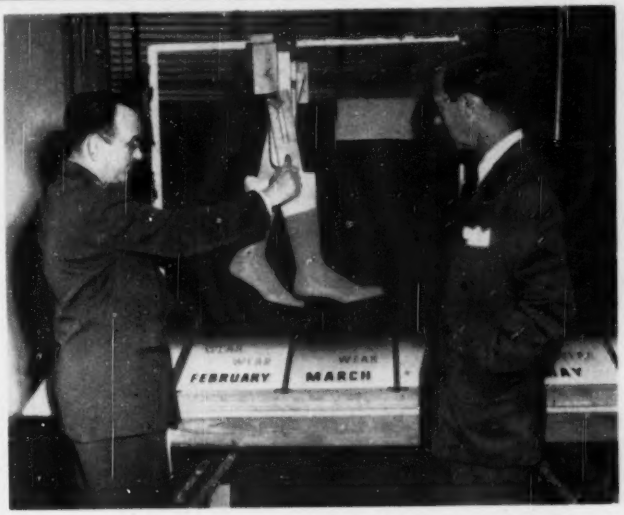
Fluorescent Materials Used as Tracers. Use of fluorescent dyes as tracer materials in felt has been suggested by R. R. Stevens, chief research and development engineer of The Felters Company. White wool may be dyed or treated with such materials which are invisible in ordinary light but are immediately revealed upon exposure to ultraviolet light. Added in desirable proportions to untreated wools, before processing, this technique provides a new tool for studies in felting and other uses such as product identification.

International Trade Fair at Chicago. The first United States International Trade Fair, the first international exposition for industry and commerce ever staged in this country, is scheduled for August 7-19, 1950, in Chicago.

The purpose of the Fair is to provide an economical and productive medium for the sellers of the world's goods to open the American market. The Fair is to be housed in four exposition halls: Navy Pier, International Amphitheatre, Coliseum, and Arena.

Scientist Receives Smith Memorial Medal. Dr. Herbert F. Schiefer, physicist, Textiles Section, National Bureau of Standards, has been selected as the first recipient of a new award, the Harold DeWitt Smith Memorial Medal. As a testimonial to the memory of Harold DeWitt Smith, this award has been created through the generosity of Fabric Research Laboratories, Inc., Boston.

Automatic Looms Increase in Britain. A recent survey of the British cotton and rayon weaving industry indicates the extensiveness of the re-equipment program: In 1948 there were approximately 27,000 automatic looms and about 3,000 Lancashire looms equipped with automatic attachments; this compares with 18,000 and 1,350 respectively in 1939.



"BLITZ" ADVERTISING FOR SPUN NYLON SOCKS

Busy housewives were told to "Throw away your darning needle," in a series of "blitz" advertising campaigns conducted by Bear Brand Hosiery Co., in promoting their line of spun nylon socks. Campaigns in the California area were conducted this fall, and in the Los Angeles market television was chosen to augment radio and print. The "wear" story on video sound-film is portrayed by means of a unique mechanical gadget devised to make foot forms shod in Bear Brand spun nylons walk over an endless treadmill of calendar months.

Patience Is Rewarding. Walter J. Hamburger, Fabric Research Laboratories, Inc., has this to say about basic research in the textile industry: "Since textile science is relatively young and broadly encompasses physics, chemistry, electricity, mechanics, microscopy, mathematics, applied mechanics, and their respective sub-divisions, research which may at present appear to be unduly time consuming may result in the rapid solution of problems of extreme importance in the future."

Open House Visitors Number 4,000. Approximately 4,000 people visited Fieldcrest Mills during the third annual plant visits (open house). The mill visitation was part of a 4-day program of other activities, all part of a broad plan designed to bring about greater understanding and cooperation between the mills and the communities.

Survey on Hosiery Wearing Habits. Concerned in recent years with the reduction in the per-capita use of women's hosiery, and with the bareleg habit which appears in the warm seasons, the National Association of Hosiery Manufacturers has concluded arrangements with the research organization of Elmo Roper for an extensive consumer survey on the hosiery wearing habits of women,

KICK RUST OUT of Your Weave Room!

INSTALL EMMONS RUST-PROOF HARNESS!

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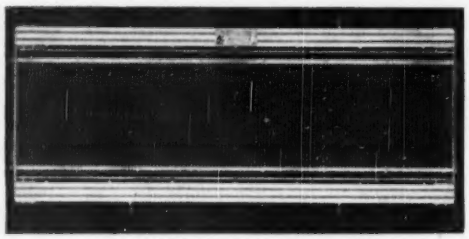
Here's The E-Man's RUST-PROOF Combination:



EMMONS ALUMINUM HEDDLE FRAMES

ALUMINUM—*Will Not Rust!*

EMMONS STAINLESS STEEL REEDS

STAINLESS STEEL—*Will Not Rust!*

EMMONS STAINLESS STEEL HEDDLES

STAINLESS STEEL—*Will Not Rust!*

You can permanently overcome rusting and corrosion in the weave-room by installing the Emmons *RUST-PROOF* combination shown above. Other great advantages of this RUST-PROOF threesome include extra frame rigidity, reducing distortion; heddles that slide freely, greatly reduced heddle and yarn breakage, increased loom speed potential, reeds that clean easier and suffer less from dent breakage and LONGER LIFE for all three!

Get complete information on the E-Man's RUST-PROOF combination NOW!

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ATLANTA
ARTHUR HARRIS
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Phone—Main 2643

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EMMONS
WEAVE ROOM EQUIPMENT

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as well as their purchasing habits of both women's hosiery and children's hosiery.

Design Library Recovered. The world-renowned Dornbusch library of 30,000 original grains and designs which had been thought lost during the war, has been recovered, according to F. A. Ringler Company, 42 Park Place, New York, engraving concern. Sample swatches and impressions of the patterns will be available to manufacturers as either engraved steel rolls or electrosteel plates.

Purchase Textiles with ECA Funds. Indonesia has been authorized to buy eleven million dollars worth of fabricated basic textiles from the U. S. with ECA funds.

Union Maintains Wage and Work Standards. According to an announcement from the American Federation of Hosiery Workers, wage and work standards for some 30,000 operatives in the full-fashioned hosiery industry have been maintained with the renewal of contracts with better than 90% of its members. The announcement explains that "the successful negotiations by the Federation resisted every effort by the employers to reduce wage levels." The AFHW is said to traditionally negotiate a master contract with the industry association and then to bargain with the independent mills individually.

Mobilization for Narrow Fabrics Industry. Leaders of the narrow fabrics and webbing industry met recently with representatives of the New York Quartermaster Procurement Agency to discuss industrial mobilization planning in relation to that industry. Presiding at the meeting was James A. Hendley, vice-president of the Russell Manufacturing Co., Middletown, Conn., and chairman of the Narrow Fabrics and Webbing Commodity Division of the Quartermaster Association, which sponsored the meeting.

New Resin Form Boon to Industry. DuPont has discovered new forms of Teflon tetrafluoroethylene resin in which fine particles of the plastic are suspended in a liquid. It now adheres to metals and can be sprayed thereon. Probable uses: Industrial finishes with paint-spraying equipment (give chemical tanks corrosion-resistant linings); enamels for insulating fine wire; glass fabrics coated with the product. In addition, the raw material may have other uses.

National Cotton Week. The National Cotton Council has announced that National Cotton Week will be held May 1 to 6. The occasion this year will be utilized to emphasize promotions of cotton apparel, piece goods, and home furnishings. Comprehensive promotional material will be available to mills, converters, jobbers, garment manufacturers, and retailers. This year marks the first time that the National Cotton Council assumes complete direction of all Cotton Week activities.

Gift to Philadelphia Textile Institute Foundation. Dr. C. Scott Althouse, president, Althouse Chemical Co., Inc., and an alumnus

PALLET RACK SYSTEM SOLVES STORAGE PROBLEM

The Hellwig Dyeing Corp., Philadelphia, Pa., dyers of piece goods, recently solved a two-fold problem through the installation of a large and well-planned pallet rack system.

After a single entry rack had been installed, Hellwig found they could handle about 2½ times as much material as they could before in the same amount of space. This led to the erection of six additional double racks. The increased efficiency was obvious; aisles became less congested, and materials were more readily stored and located.

These two installations brought such gratifying results that still another large rack was installed, thereby increasing the overall efficiency of the operation to a point where they can now handle 3 times the material formerly handled.

The racks were built of adjustable and reusable Unistrut all-purpose metal framing, and they were erected by the plant maintenance crew.

*Designed Exclusively for Callaway Mills, Inc., and awarded Honorable Mention, 1949 in packaging competition.

SINCE 1868—THE FIRST NAME IN PACKAGING.

ATLANTA PAPER COMPANY
ATLANTA, GEORGIA

- Corrugated Shipping Cases
- Belsinger Corrugated Textile Cases
- Display Folding Cartons
- Printed Papers and Cone Wraps
- Glassine Specialty Bags
- Kraft and Waterproof Paper
- Gummed Tapes
- Textile Specialties

of the Philadelphia Textile Institute, has presented a gift in the amount of $27,804.50 to the Philadelphia Textile Institute Foundation. The organic chemistry laboratory in the new Institute building will be named The Althouse Chemical Company Organic Chemistry Laboratory, in honor of Dr. Althouse.

Textile Industry Needs Engineering Approach. "The mechanical and technical advances in the textile industry have introduced complications with which the average machine operator cannot cope," James R. Longstreet of the Textile Division of the Warner & Swasey Co., told The American Society of Mechanical Engineers at its 70th annual meeting in New York.

The day of the machine "fixer" is gone. Engineers are desperately needed in the industry. Few individuals can qualify as both operator and maintenance man. Management must recognize this, said Mr. Longstreet, or he will find that expenses have increased and production decreased. The engineer who can apply analytical reasoning, can cut costs and waste to a degree that most operators fail to realize.

Suggests Clothing Institute. Pointing out that the greatest problem facing the men's clothing industry today is to furnish the buying public with clothing worth the prices paid, Michael Daroff of H. Daroff & Sons urged the formation of a Clothing Institute with a technical division to improve fabrics and conversion processes, and a public relations department which would educate consumers on the service factors of clothing sold in different price ranges.

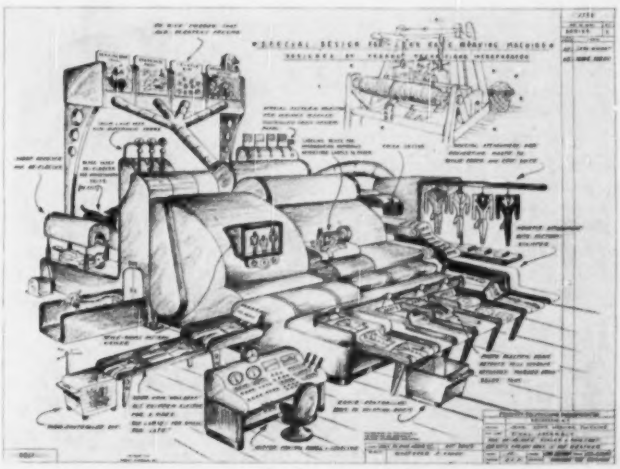
LABOR RULING

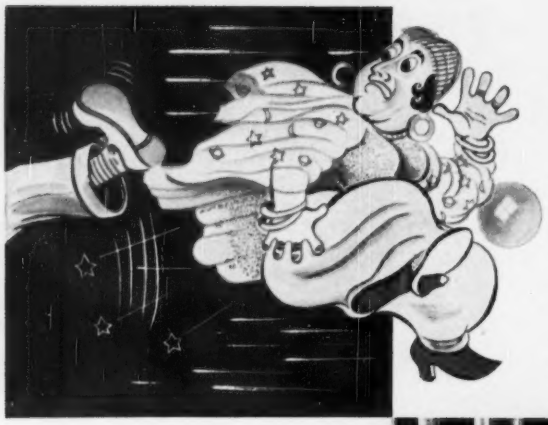
The installation and maintenance of a suggestion system will not impose any liabilities on employers so long as the making of suggestions "is in no way connected with the usual and customary duties of any employee of the class eligible to participate under the system," and "no employee is required or specifically urged to make suggestions of any kind or led to believe that he will not merit promotion or advancement unless he submits suggestions," and "the invitation to employees remains general and no specific assignment is outlined to employees to work on or develop."

ENGINEER'S DREAM CONVERTS RAW STOCK TO FINISHED GARMENTS

At long last the textile engineer's dream has been put on paper. Product Technicians Inc., industrial designers and engineers, Rochester, N. Y., has called the final assembly "John Kay's Weaving Machine," for up-to-date styles and comfort —hot suits for hot boys in hot weather. As shown on the drawing, raw materials are fed into one end of the machine, and finished garments emerge from the other end. Among the finished products are coats, pants, vests, and ties. A special attachment converts waste into Wylie coats and Zoot suits. A photo electric beam detects "mill seconds" and automatically attaches "marked down" sales tags.

A special pattern selector for various weaves is controlled from a master panel and selector. To give tweeds that old scratchy feeling, a thistle bin is provided. Other reservoirs include a herringbone tank, sharkskin pool, and hounds tooth hutch. For use in making undertaker's suits, a black sheep de-fleecer is provided and is separate from the regular sheep receiver and de-fleecer. One panel of the machine has a 5000 UPM "hell-bent" G. I. uniform ejector for 3 sizes; too large, too small, and too late. The machine seems to be complete and includes a style-scope pattern view, color and dye vats with electronic feeds, and polka dotter.





You don't need a gypsy...

to foretell the future of this compressor!

Consider the evidence:

Gardner-Denver AA Compressors are known throughout the world for continuous service under all operating conditions.

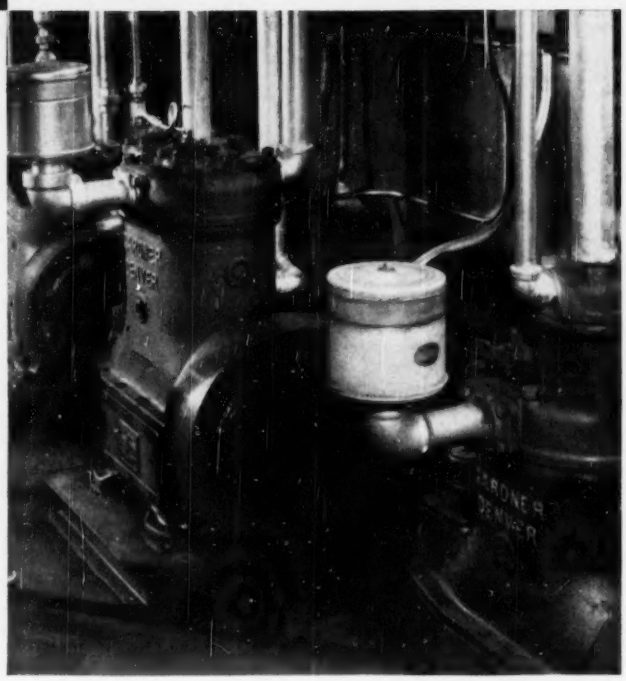
Look into the design:

Gardner-Denver AA Compressors are built to last, with quality features such as generous bearing areas, extra large water jackets and force feed lubrication.

You can safely predict:

A Gardner-Denver AA Compressor installed in your plant will assure a dependable source of compressed air for years to come — will save you money every year — on both operation and maintenance.

Write today for complete information on AA service records and construction features.



Gardner-Denver AA Vertical, Single-Stage, Water-Cooled Compressor. Capacities from 32 to 183.6 cubic feet displacement per minute.

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AN

EXECUTIVE VIEWS

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

IF YOU have not yet read J. T. Flynn's *The Road Ahead* then you should read it today. If the fluctuating cotton market or some of the other problems which beset the textile man confront you, then it might be permissible to wait until tonight to read this volume, but under no circumstances should you wait longer than that.

Mr. Flynn, the author of several other widely read books dealing with the American scene, quotes in the front of the current volume the following verses from Matthew, Chapter 24:

> "For as in the days that were before the flood they were eating and drinking, marrying and giving in marriage, until the day that Noah entered into the ark.
>
> "And knew not until the flood came and took them all away."

These lines are symbolic of the entire book.

Mr. Flynn points out that the Socialist government in Great Britain did not come into power by accident; it resulted from a carefully conceived and carefully executed plan which began many years ago and which culminated with the devastating victories of the Labor Party. He points out that the movement in Britain was modeled after the tactics of the Roman, Quintus Fabius, who contended that the most plausible way to defeat Hannibal was to avoid a major engagement and instead to lure him into a number of small engagements and thus defeat him piecemeal.

Thus it was that in 1883 a small group of Socialists organized in England what they called the Fabian Society. This group scrupulously refrained from using terms such as "Socialism" and "Communism" because those were names which the stolid British public would never swallow; instead, with carefully planned strategy, they gradually infiltrated into the British political picture, never calling a spade a spade, but instead describing it perhaps as a mechanical instrument for turning the soil.

Victory in England

In a surprisingly short period of time the Fabians became strong enough to constitute a political arm of the Liberal Party until their own group became strong enough to displace it. They did not advocate a Socialist State. Gradually, however, section by section they advocated welfare measures which in themselves were not particularly obnoxious, but which considered as a group became the pattern of the "Welfare State."

Finally the Fabians became so strong that it was impossible for the Liberal Party, upon which they had attached themselves as parasite growths, to win an election without the approval of the masquerading Socialists. It was around 1905 and the several years which followed that what is now the Labor Party in England began literally to take over the Liberal Party. Finally the Liberal Party, in the words of Mr. Flynn, "found itself the prisoner of the Socialist Labor groups."

It was also about this time that a number of welfare measures were introduced in Parliament which corresponded with measures later introduced into the United States Congress during the period 1933-1937.

By 1949 the Labor Party had destroyed the Liberal Party. It had scrupuously refrained from using the word Socialism and instead had emphasized welfare measures such as social security. It had penetrated educational institutions, and it had penetrated the church. Step by step it had taken England closer to Socialism until finally the electorate reached out and embraced the Socialist State without realizing just what it was accepting.

Great Britain at last had Socialism, and in its wake came "Austerity," the official name for rationing, for high taxes, for less goods and less money to buy them with.

The Parallel

Mr. Flynn points out that those who now hold the reins of authority in Great Britain find themselves at the crossroads. They have now nationalized eight functions: The Bank of England, overseas communications, civil aviation, transportation, coal mines, electricity, the gas industry and medical services. Sir Stafford Cripps pointed out in 1946 that every country which has attempted "planned economy" has been compelled to use compulsion. This, too, finally came to Britain, and a law was then enacted to the effect that no persons between certain age limits could change occupations at will. The Minister of Labor had the power to elect where such people would work in order that they might best serve the national interests. That act brought Great Britain into the category of the "police state."

The people for whom Britain's rulers expressed such concern and for whose security they had enacted so many Socialistic measures were now finding that all was not sunshine and light. They found that the economy of a nation is tremendously complex and involved and that one regulatory measure always calls for another to aid and abet it; they found that boards and bureaus are necessary to enforce the regulations, and that checkers have to be employed to check the checkers, and that in the end more regulatory measures are required to regulate the checkers. They found themselves in the very middle of a "compulsion" government, and they had just fought a great war to overthrow just such a government, fighting in the name of freedom, democracy and liberty.

Mr. Flynn points to the startling similarity of what happened in England during the first half of

SLASHING HINTS

No. 12 of a series

KEEPING SIZE

There is a great deal of discussion about how long size should be kept before using, and whether it can be kept overnite or over week-ends. No yes-or-no answer can be given . . . and a lot of explanatory words could be written.

Briefly, you are paying good money to see a good job done. If your weave is not too difficult, the decrease in sizing efficiency due to keeping size overnite may not be noticeable. The size should be kept hot . . . over 180° F. if possible. A minimum of agitation is required to prevent breaking down the viscosity too much.

But if your weaves are not so easy, it is pennywise to try to save a few pounds of starch at a sacrifice in the weave-room. What's the use of investing all that cash in slashers, and slashermen, if you are not going to get good results? The percent of your slashing costs that those few pounds of starch represent is not worth the risk.

One slightly sub-normal warp might go unnoticed by the overseer. But it is there. And the weaver will know it.

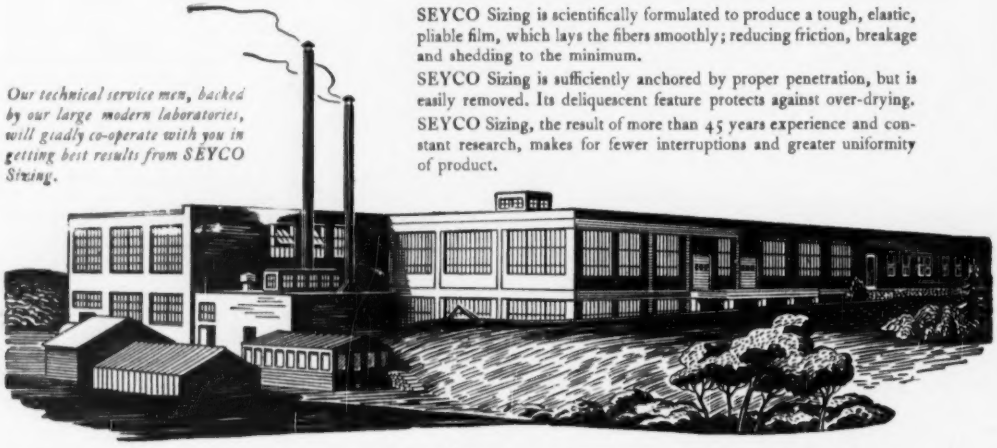
HEADQUARTERS FOR SIZE

Our technical service men, backed by our large modern laboratories, will gladly co-operate with you in getting best results from SEYCO Sizing.

SEYCO Sizing is scientifically formulated to produce a tough, elastic, pliable film, which lays the fibers smoothly; reducing friction, breakage and shedding to the minimum.

SEYCO Sizing is sufficiently anchored by proper penetration, but is easily removed. Its deliquescent feature protects against over-drying.

SEYCO Sizing, the result of more than 45 years experience and constant research, makes for fewer interruptions and greater uniformity of product.



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the Twentieth Century and what has been happening in America since 1932.

Whole Hog or Nothing

In *The Road Ahead* the point is very strongly made that no government can travel half the way down the road to Socialism and then stop. It must either stop and turn back, or it must move ahead as did England. It is impossible simply to stop, because once a given number of "Welfare State" measures have been enacted, other measures become necessary in order to make the first ones work.

Mr. Flynn feels that America has now reached the crossroads where it must decide which road it will take.

The Wolf in Sheep's Clothing

Most of us sincerely doubt that the 140,000,000 Americans in this country would go to the polls tomorrow and vote for Socialism if it were plainly labeled on the ballot as such. They have seen the Socialistic nations of the world figuratively standing outside of America's door with their hats off and with their hands outstretched. They have seen these nations scoff at democracy, deride capitalism and scorn us in fifteen European languages and five Indian dialects, but in those same languages and in those same dialects they have approached us for military assistance and financial assistance, and by the time they have reached Washington they have learned to say "dollar" just as clearly and plainly as you and I.

Thus we need not have too many fears about the American people taking Socialism into their homes. The grave danger, however, is that what we are buying today is not called Socialism.

The government has been very energetic in passing "labeling acts" requiring manufacturers to show the true and correct contents of manufactured goods, but some of our alleged statesmen have not been quite so interested in labeling the goods they have offered the voters. In fact, a glance at some of the political platforms of recent years and even a hasty scanning of the speeches of some of the candidates for public office reveals that Diogenes might have to have more than a lantern to find an honest man in some of America's parties.

They have sold us security, and they have sold us pensions, and they have sold freedom from nearly everything except taxes. And all of it has been carefully and prettily wrapped in the finest chocolate which can be manufactured in the propaganda mills. They have even used the old dodge of telling one community that if it does not hurry up and get the "benefits offered" then it may find it is too late, because some other community will beat them to it.

They have promised us the world with a white fence around it, but under no circumstances have they ever let us see that when the gate is closed we will find ourselves inside that fence with all the exits barred. As we have gone down this road we have seen many signposts but none of them have read "State Socialism." The men who planned the signposts have been too smart for that.

Read it Now

Most of the people who read TEXTILE INDUSTRIES are already concerned with regard to where this Nation is headed. If you are as concerned as you have been saying you are, then you should read *The Road Ahead*, and after you have read it you should see that your minister reads it, that your local editor reads it, and that your local school principal reads it. After you have read the book, there will occur to you numerous other categories of people who should also have the facts it contains.

As we said in the beginning of this little piece, if you have not read *The Road Ahead*, read it today.

Mar. 5-7—Eleventh annual Southern Safety Conference, Peabody Hotel, Memphis, Tenn.

Mar. 30-April 1—Annual meeting American Cotton Manufacturers Institute, Palm Beach Biltmore Hotel, Palm Beach, Fla.

April 17-27—Carpet Institute, Carpet Fashion Opening, New York, N. Y.

April 24-28—Knitting and Allied Crafts Exposition, 71st Regiment Armory, New York, N. Y.

April 25-26—Annual convention, National Knitted Outerwear Association, Hotel Waldorf-Astoria, New York, N. Y.

April 27-29—Annual convention, Alabama Cotton Manufacturers Association, Buena Vista Hotel, Biloxi, Miss.

May 1—Annual meeting, National Association of Hosiery Manufacturers, Claridge Hotel, Atlantic City, N. J.

May 1-6—National Cotton Week, sponsored by National Cotton Council.

May 1-2—Hosiery Industry Conference, Claridge Hotel, Atlantic City, N. J.

May 8-12—American Textile Machinery Exhibition, sponsored by National Association of Textile Machinery Manufacturers, Atlantic City Auditorium, Atlantic City, N. J.

May 11-13—Annual meeting, Cotton Manufacturers Association of South Carolina, Fort Sumter Hotel, Charleston.

May 17-19—Fiftieth annual (Golden Anniversary) convention, Cotton Manufacturers Association of Georgia, Sheraton Plaza Hotel, Daytona Beach, Fla.

June 1-3—Annual convention, Southern Textile Association, Ocean Forest Hotel, Myrtle Beach, S. C.

June 12-16—Materials Handling Exposition, International Amphitheatre, Chicago, Ill.

Sept. 22-23—Second Canadian Textile Seminar, Queen's University, Kingston, Ont., Canada.

Sept. 28-30—Annual convention, American Association of Textile Chemists and Colorists, Wentworth-by-the-Sea, Portsmouth, N. H.

Oct. 2-7—10th Southern Textile Exposition, Textile Hall, Greenville, S. C.

All the piping equipment you need ...on one order to CRANE

SMALL STEEL VALVES WITH BIG VALVE FEATURES

Crane 600-Pound Small Steel Gates with Union Bonnet—for steam, water, gas, or air—are smaller, lighter, and more compact than usual high pressure design . . . yet are amply strong. Metal sections at all points provide extra strength and safety under rough usage and extreme pressure-temperature conditions.

Body, bonnet and yoke are high quality carbon steel. Seating is Hardened Stainless to Exelloy, offering superior resistance to wear, corrosion, and temperature effects. Husky bonnet ring with long, precision-cut threads pulls up easily . . . always stays tight. Long-lived blowout-proof gasket in bonnet joint is unaffected by highest temperatures or fluids on recommended services. For more information, **write for circular AD-1741.**

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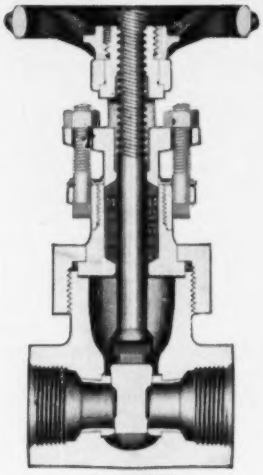
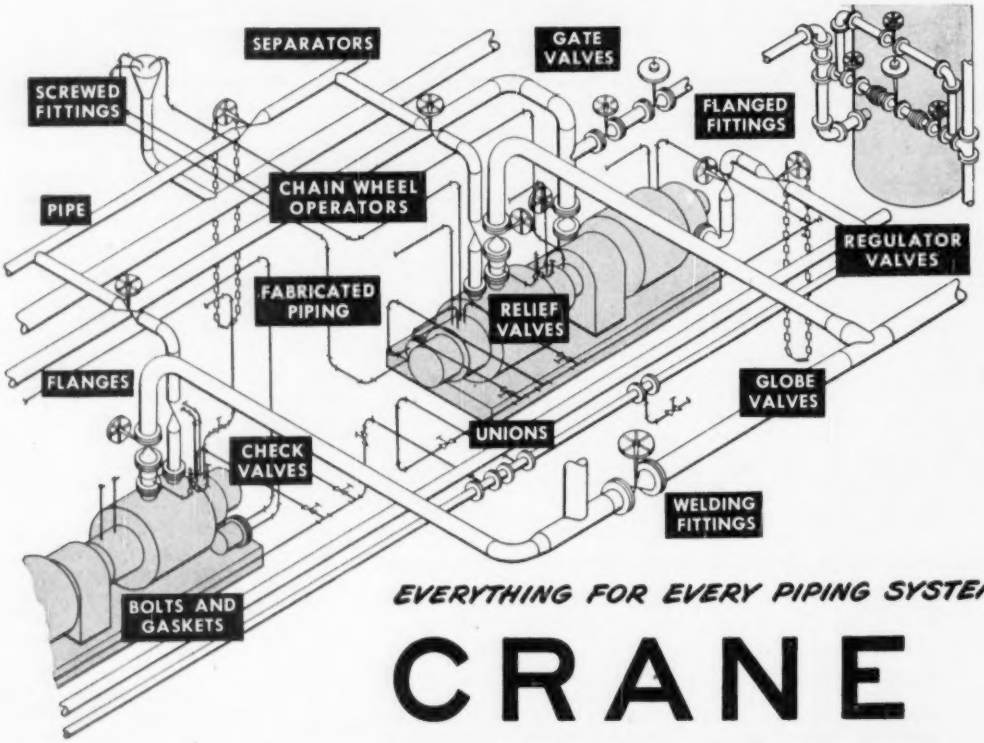


No. 3602XW

For steam up to 850 deg. F., and for water, gas, or air. Sizes: ¼ to 2 in. Screwed or welding ends

THIS POWER PLANT INSTALLATION, FOR EXAMPLE, CAN BE COMPLETELY EQUIPPED BY CRANE



EVERYTHING FOR EVERY PIPING SYSTEM

CRANE

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING

Watch for April Issue

Our April issue will contain an editorial extra giving a preview of the American Textile Machinery Exhibition (Atlantic City Show), plus all the necessary information connected with attending. Watch for it! Incidentally, those planning to attend the show May 8-12 are urged to make room reservations early by communicating with the Housing Secretary, 16 Central Pier, Atlantic City, N. J.

We're Happy to Be of Service

"Received the information you sent about air currents on pickers. Thank you and your staff for such wonderful service. Also, the indexes came into service in checking the back issues of TEXTILE INDUSTRIES.

PETER SYLVIA
352 S. First St.
New Bedford, Mass.

Industrial Engineering

"I have read with interest your article on 'Industrial Engineering for the Small Plant' by George E. Tucker in your May 1949 issue. If possible, I would like to obtain two reprints of this fine article."

J. WILSON MALLOY
Ass't. Production Mgr.
Rocky Mount (N. C.) Mills

Step Sheaves

". . . noticed the very interesting article . . . December issue which describes step sheaves for various drives in mills. Can you give me the name of the manufacturer?"

R. A. BUTLER
Manager
Spray (N. C.) Cotton Mills

Modern Equipment and Processing Review

". . . you have a very wonderful presentation [Modern Equipment and Processing Review, October issue]. I have used this review extensively in checking up on the new items of equipment which might have application to our operations and which might be of interest to us . . . appreciate your sending us 25 copies and billing us."

E. L. JORDAN
United Merchants & Manufacturers, Inc.
Fabric Production Div.
New York City

● Most readers like the review issue because it not only describes the new equipment made available that year, but provides a check list. Sorry, no reprints.

Loom Fixing Articles

"In connection with our loom fixing classes, we are interested in obtaining some up to date material . . . any reprints of articles."

JAMES A. WRIGHT
Columbus (Ga.) Mfg. Co.

Element 84 (Pro and Con)

". . . your group is to be highly commended for the excellent way in which the subject [Radioactive Element 84 Neutralizes Static Charges, Dec. '49] was handled, which no doubt represented considerable research and study on the part of Mr. Paul Platzman [see picture] in order to develop a story of such tremendous reader interest."

R. A. MILLER
Gibbs Mfg. & Research Corp.
Janesville, Wis.

Associate Editor Platzman busy at research and study on Element 84 (skiing and duck hunting were purely coincidental).

". . . really a splendid article and well written . . . appears meaty . . . One error—half-life of Polonium. Instead of 18 months it should have read 5 months."

". . . Isn't it rather dangerous disservice to your readers to tell them that Polonium is harmless to humans? When in the same boxed editorial you quote, under 'Authorities Speak,' a contradiction?"

LOUIS ROBERT KORN
Louis Robert Korn & Co.
Marketing Counsel, Advertising
Boston, Mass.

● For full explanation regarding the half-life of Polonium, turn to the HOW OTHER MEN MANAGE department and read the letter on page 166.

SHORTS and REMNANTS

In News Briefs

". . . brief article entitled 'Engineers to Serve Government on Defense Services.' Would appreciate becoming more informed on this subject."

P. T. BODELL
Research & Technical Control
Collins & Aikman Corp.
Bristol, R. I.

● Our News Briefs section is a highly condensed version of news for the industry. When additional information is needed, we shall be happy to supply it.

Seydel's Swiss Jaunt

". . . article 'Swiss Slashing Practices' by Paul V. Seydel in November 1949 issue . . . mentions a pocket model refractometer which is calibrated to read directly in percentage of starch . . . am extremely interested in where I can obtain information . . . for use in our sizing department."

W. MIHALIK
Supervisor, Textile Chemicals Section
Textile Processing Division
Botany Chem. & Color Labs.
Botany Mills, Inc.
Passaic, N. J.

Articles of Lasting Value

". . . ten reprints of the article in the October issue 'Waste Reduction and Control' by Ben H. Crawford."

CULVER BATSON
Dan River Mills, Inc.
Danville, Va.

". . . would like to have three copies of 'Loom Motor Research' which appeared in the November 1941 issue."

GRIER WALLACE, Jr.
Weston Electrical Inst. Co.
Charlotte, N. C.

Stinks—But Good

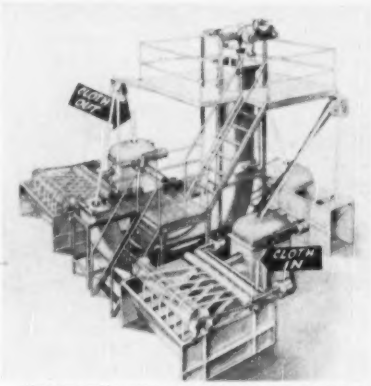
And to top it off this month, we received a check for five bucks which bought a subscription to TI; penned in at the bottom of the correspondence was the notation, "your magazine stinks." Probably an optimistic soul, purchasing on future odor.

Something to "CROW" about

the NEW WIESNER-RAPP "BANTAM"

REDUCED SIZE CONTINUOUS BLEACHING RANGE

PROVIDES SMALLER MILLS WITH ALL OF THE ECONOMIES AND ADVANTAGES OF CONTINUOUS BLEACHING . . . IDEAL FOR SPECIALTY BLEACHING IN LARGE PLANTS



"BANTAM" WITH FEATURES FOR BECCO PROCESS

"BANTAM" WITH FEATURES FOR DU PONT PROCESS

★ **NEW IN SIZE ONLY . . . PROVEN IN DESIGN AND CONSTRUCTION . . .** This "Bantam" Continuous Bleaching Range is a complete duplicate (in a smaller size) of the well-known, time-proven, full-size Wiesner-Rapp Ranges that are operating around the clock in many of America's largest mills. This background of design, construction and performance assures dependable, trouble-free operation of the "Bantam."

★ **INDEPENDENT, SELF-CONTAINED COMPONENTS . . .** All "Bantam" "J" Boxes, Washers, Squeezers and Saturators are individual pieces of equipment which permit setups in a group around the "J" Box or in a straight line to efficiently meet the exact requirements of each individual mill.

★ **COMPACT . . .** The Wiesner-Rapp "Bantam" Continuous Bleaching Range requires only 16'x 20' floor space and only 16½' height in a group setup as illustrated at left. The straight-line setup requires only 52' of floor space.

★ **VERSATILITY . . .** The individual pieces of equipment used in this "Bantam" Range are quickly and easily adapted to any of the wide variety of continuous processing requirements. In addition, this "Bantam" equipment may be teamed-up with full-size Ranges.

★ **TWO TYPES . . .** This "Bantam" Range is available with features for the Becco or du Pont Bleaching Process.

★ **CAPACITY** up to 900 pounds an hour at speeds from 25 to 125 yards per minute.

★ **BE AHEAD . . . STAY AHEAD WITH WIESNER-RAPP** by writing *today* for Bulletin T-103. It's too big a story to tell on this page.

THE WIESNER-RAPP Co., Inc.
1602 SENECA ST., BUFFALO 10, NEW YORK
Manufacturers of Textile Finishing Machinery

Textile Industries
FEBRUARY, 1950

Pepperell Uses Pearl Starch

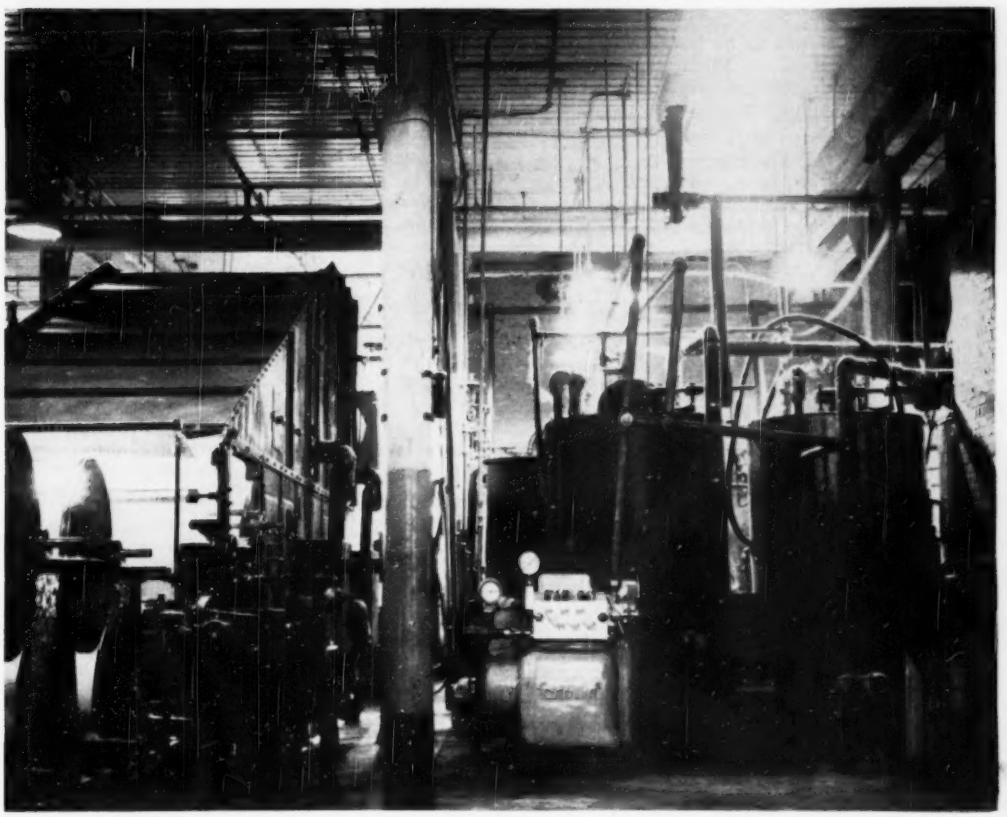
Staff Prepared

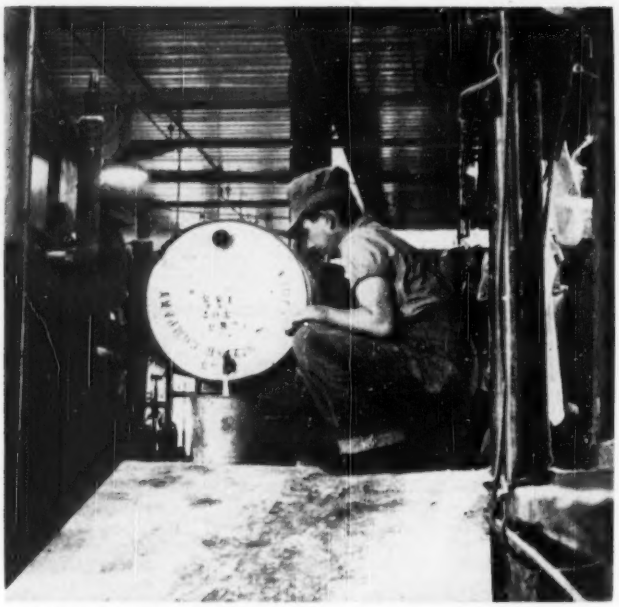
THROUGH use of Gaulin Homogenizer*, a machine which is comparatively new to the textile industry, the Pepperell Alabama Division of Pepperell Manufacturing Company has substituted thick-boiling pearl corn starch for modified (thin-boiling) corn starch in its size mix for the slashing of wide sheetings.

*Manufactured by Manton-Gaulin Mfg. Co., Inc., Everett, Mass. For other published information on homogenization, see TEXTILE INDUSTRIES, Sept., 1949, page 182; Dec., 1949, pages 123-125.

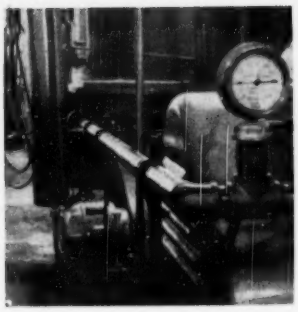
An entire weave room has been running for some time on warps sized with a mix which has been processed through the homogenizer, and shedding is noticeably less; there is also thought to be an improvement in weaving efficiency, but because of other changes made simultaneously in

HOMOGENIZER in Pepperell's slasher room. The homogenizer (machine in center of photo, equipped with gauges) processes pearl corn starch. Temporarily it is located on same floor as slasher, and beside kettle platform; under a permanent arrangement it would be located closer to cooking kettles and on same level so size cooker could check pressure gauge as he prepares the next mix.





COMPOUND IN LIQUID FORM is used in homogenized size mix at Pepperell. The compound is cold-water-miscible and eliminates the necessity of depending upon melting and agitation to disperse fats and waxes in mix to be homogenized; it is measured, not weighed.



MIX IS PUMPED to homogenizer through 2-inch pipe. As mix passes through homogenizer, it travels to storage kettle at rate of 200 gallons per hour. It is recommended that the homogenizer be located as close to the mixing kettle as possible.

the weave room, the exact amount of weaving efficiency improvement due solely to the homogenization of the size mix cannot be checked.

Liquid Compound. The warp lubricant, or sizing compound, also has been changed from one in paste form to a product in liquid form and cold-water-miscible to eliminate depending entirely on melting and limited agitation for the dispersion of fats and waxes in the mix to be homogenized. The same percentage of compound in liquid form, based on the weight of the starch, is used; however, it is measured by volume instead of by weight.

The same percentage of size (12 to 12½%) is added to the yarn with the homogenized size as before. Previously, though, the regular size mix for these wide sheeting warps contained 21.6 ounces of thin-boiling corn starch per finished gallon with 10% sizing compound (in paste form) based on the weight of starch used, with a cooking time of 1½ hours. The concentration of the size mix today is 17.6 ounces of thick-boiling pearl corn starch per finished gallon and 10% sizing compound (in liquid form) based on the weight of starch used. Note that no starch has been saved, but a different type of starch is being used.

Making the Mix. Cooking time has been reduced. The required amount of cold water for the mix is drawn in the cooking kettle, the stirrers are started, the liquid lubricant is added, and the weighed starch is put in the kettle. At this point compressed air is introduced into the kettle by

Additional Information on Homogenizer Installation at Pepperell

Viscosity of Mix. It is more uniform than before homogenization. Mill does not store size over week-end.

Slasher Speed. No change.

Weave Room Humidity. Decreasing relative humidity was tried, but it was not found successful. Note that Pepperell has not decreased the size content of its warps; the same amount of solids is added as before.

Starch Consumption. Without homogenization were using 190 lb of thin-boiling starch; with homogenization use 155 lb of pearl starch (to give the same amount of added size on yarn). No actual saving in starch poundage; use different type starch.

Time Saved. Before homogenization, 1½ hours to cook batch. With homogenization, 15 minutes to bring slurry to 200 F, plus 45 minutes to run batch (141 gal) through homogenizer. As soon as mix begins to pass through homogenizer it is ready for use.

Size Box Temperature. No change.

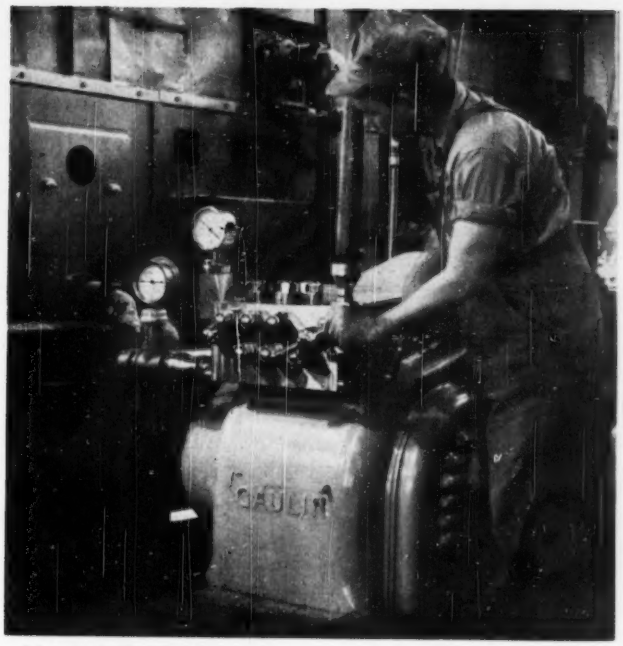
Weaving Efficiency. Thought to be better. Unable to spot efficiency increase because of other mill changes.

Shedding in Weaving. Noticeably less with homogenized warps.

Storage Temperature. 190 F.

Labor Saving. None. Mill employs only one man in size cooking room. One operative still needed.

Compound. Changed from paste compound to compound in liquid form.



REGULATING PRESSURE. Operator regulates pressure by turning the handwheels on the two-stage valve assembly on the homogenizer.

means of a perforated coil at the bottom of the kettle in order to secure faster and more complete agitation of the mix; steam is then turned on to bring the mix to 200 F as fast as possible. The entire foregoing operations require approximately fifteen minutes.

At this point the mix is extremely viscous, is brought to the desired number of gallons, and is ready for the homogenizing process.

A pump delivers the viscous mix to the homogenizer at the rate of 200 gal. per hour. Flow of the mix is from the mixing kettle, to and through the homogenizer, with constant delivery from the homogenizer to the storage kettle, where it is ready for use in the size box. It is to be noted that *all* of the mix is not cooked at once, but is done gradually according to the flow through the homogenizer; this flow is controlled by the size and rating of the machine.

Mechanical Adjustment. As soon as the pump starts delivering the mix to the homogenizer, the size man (cooker) sets the pressure on the homogenizer by turning handwheels on a two-stage valve assembly until the pressure gauge registers properly. At Pepperell 1500 psi are used on the homogenizer.

No other attention is generally required of the operator except to refer to the pressure gauge to determine that the correct pressure is being maintained.

As with any equipment which is being applied by new users for a new purpose, a certain amount of experience is needed by the operator before he can adjust the pressure valves correctly to maintain the needed pressure. This is not to imply that the equipment is difficult to handle; to the contrary, because the job of the operator is relatively simple once he has had his basic training. (Some drops in pressure are indicated by the sound of the machine as well as by visual observation of the pressure gauge.)

Maintenance. Should occasional drops in pressure be noted, they may be due to an accumulation of lint which has interfered with the operation of the homogenizer valve. Remedy for this is to disassemble the valve and clean it, which is no major operation. Since Pepperell does not use its homogenizer continuously, it is customary to flush it out after each batch has been passed through. However, should it be used constantly, this flushing would not be necessary except at the end of the day.

An occasional regrinding of the valves is recommended for the homogenizer, but an instance is known whereby a mill operated a homogenizer for eight months without a valve grinding.

Performance of the homogenizer at Pepperell has been pleasing. Warps sized from the homogenized mix have a somewhat smoother feel, significant because the actual added size was the same in both instances, and the kind and amounts of lubricant were the same. There was also observed a lesser degree of gelling of the paste when cooled, and there seems to be less trouble with hard size when the slasher is stopped.

Other Experiences with Homogenizers

(As furnished by an equipment manufacturer and a textile mill)

Cost: Assuming that the average warp sizing contains 12% starch, or 100 lb of starch per 100 gal finished volume, what will be the cost of processing 100 lb starch?

Answer: In general the steam requirements would be that to raise the starch-water mixture to a temperature of approximately 170 F. The power requirements for 100 gal/hr capacity homogenizer at 3000 lb pressure would be 4 hp. However, as most sizings are prepared at considerably lower pressures than 3000 lb, this maximum horsepower requirement would probably never be used. At present recommend

flushing the machine out daily, so the cost factor would depend upon how many batches per day are prepared. Also recommend taking the machine down once a week and checking it; this would probably involve one hour of semi-skilled labor. The homogenizing valves usually receive the most wear; regrinding job on these valves costs approximately $5.00 per set.

Temperature: Does the homogenizing process increase the temperature of the sizing to the normal size box temperature, or must the homogenized size be heated in the storage kettle?

Answer: Homogenizing will cause an increase of about 5 F at 500 psi and 15 F at 1500 psi. As this is not sufficient to raise the temperature of the size to 200 F, additional heat is usually supplied in the size box. In a few instances mills heat the size in the storage kettle, but in most cases it is held in storage without additional heat — the heat being supplied at the slasher.

Potato Starch: What is approximate time required for processing when potato starch is used?

Answer: The approximate time required for processing 100 gal is 35 minutes where a 400 gal/hr machine is used. Approximately 20 minutes of this time is used in bringing the slurry to 170 degrees before starting the mix to the homogenizer.

Viscosity: Does heat applied in the storage kettle or size box tend to further reduce the viscosity of homogenized starch during storage and use periods?

Answer: Any heat applied to size either in the storage kettle or in the size box will tend to further reduce the viscosity; however, since homogenized size has not been heated to anywhere near the extent of boiled size, this reduction in viscosity is much less than with the usual boiled size.

Congealing: Does homogenized corn starch have a lower gelation temperature (slower congealing) than the same starch cooked in a conventional manner?

Answer: Homogenized corn starch will have a lower gelation temperature than the cooked corn starch; however, this gelation temperature will depend upon the pressure during homogenization. It has been found in practice that size prepared on a Friday may be stored without heat over the week-end, and then without heating may be pumped to the size box, heated to the desired temperature, and run satisfactorily.

Softness: If a homogenized corn starch sizing is allowed to cool, is it softer and less brittle than cold pastes of the same sizing cooked by conventional means?

Answer: Homogenized corn starch sizings are usually softer and less brittle in the cold condition than pastes prepared by conventional cooking.

Savings: Does the mill's interest in the homogenizer lean towards the hope of better production, greater economy at normal production, or both?

Answer: We have found that considerable improvement in weaving efficiency can be obtained, shedding reduced to a minimum, and appreciable savings in starch, labor, and steam effected. We know of instances where the quantity of starch and softener has been reduced by 10%. With homogenized starch it is not necessary to have the size maker come in two hours before the mill opens because he can deliver size to the slasher in 20 minutes.

Cotton Manufacturers Skeptical of Lint Cleaners

Spinners of fine yarns and weavers of fine fabrics do not like the rough appearance of lint cotton processed at gins equipped with the new saw-type lint cleaner, according to information from the American Cotton Manufacturers Institute, Inc. These manufacturers claim that the lint resembles reginned cotton and that the yarns manufactured from these cottons are lower in grade and considerably higher in neppiness. This is also true of the fine fabrics woven from the yarn spun from these cottons.

Two large cotton spinning and weaving plants in the South recently conducted tests to determine the waste content, the number of neps in the card web, the yarn appearance grades, and yarn skein strengths for cottons ginned with the saw-type lint cleaner as compared with cottons processed through a regular gin and a reginning plant. The test results from both of these mills indicate that the cottons ginned with the lint cleaner showed a higher nep content at the card web and more neps in the finished yarn than the cottons from the gins without the cleaner. However, there was not a noticeable depreciation in yarn skein strength.

DuPont Aids Fundamental Research

Authorized for the second year, $100,000 for grants-in-aid to universities has been made available by the Du Pont Company. The grants are for the 1950-51 academic year and are intended to "stock-pile" knowledge through the advancement of fundamental science. They provide $10,000 for each of 10 universities, all of which received similar awards from the company for the present school year. The company also provided $20,000 to the University of Chicago for a calendar year 1950 membership in its Institute for the Study of Metals.

Springfield Woolen's modern spinning room is equipped with 18 ring type spinning frames as shown here.

Ring Type Frames Provide Efficiency in Wool Spinning

- **save floor space**
- **reduce labor costs**
- **increase production**
- **lower costs in carding**
- **produce larger packages**

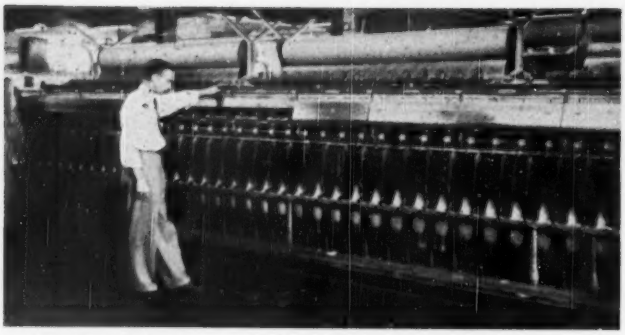
Staff Prepared

FORMERLY seventeen spinning mules were in operation in two rooms composing the spinning department at Springfield Woolen Mills, Springfield, Tenn. Through a progressive machinery replacement program, eighteen new ring spinning frames have been installed, replacing the mules. The new frames have shown a substantial increase in production, in addition to better utilizing the available space for the spinning department.

Before the changeover, 5695 pounds of nine-cut yarn (7 tpi) were spun in eight hours on 17 mules. Seventeen spinners were required to operate all of the mules. Four spinner's helpers, one oiler, and one mechanic also worked on these machines. In addition, one man weighed roving as it came off the mules, and one filling carrier transported the yarn from mules to the warping department. Each mule had 300 spindles. There were eleven 30-end spools per mule, and the draft was approximately 1.20.

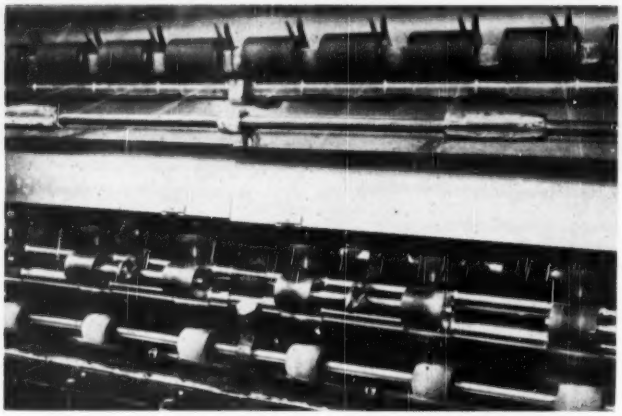
Yarns of from 5 to 30-cut were made on the old equipment. On those mules spinning 30-cut yarn, the draft was not over 1.30 because the delivery roll would not hold the yarn and breaks occurred. In considering the changeover, the management desired to draft over 1.30 to obtain a smoother yarn.

Floor Space Saved. The new equipment installed includes 18 Whitin Model E spinning frames (120 spindles per frame) which occupy the space formerly required by 13 mules. Nine spinners operate these 18 frames in addition to two spinner's helpers, one oil man, and one mechanic who also weighs. The spinners are paid on a yardage basis which also applied to mules. The rate per yard on the



Above, front view of one of the new 120-spindle wool spinning frames.

Below, closeup of drafting rolls and twister heads on frame spinning 20-cut yarn. This yarn is drafted about 30%. Same yarn was drafted approximately 25% on mules.



new spinning frames was altered to make the total pay rate equitable.

The poundage of yarn on the frames is about the same from 120 spindles as it was from 300 spindles on the mules. The new frames are now spinning 9-cut yarn (7 tpi) and drafting approximately 1.40.

Cuts Carding Costs. By drafting more to obtain 9-cut yarn it is necessary to start with a heavier stock from the card room. The result is more production in the card room, and savings accrue from obtaining more poundage of carded yarn per man hour.

Production Increased. The mill is now producing 4230 pounds of yarn in 8 hours on spinning frames. Production per spindle has increased approximately 150% per frame as compared with the mules.

Labor Savings. Other savings are made on labor in doffing. The mules were doffed about 16 times in 8 hours and required five minutes for each doff. The frames are doffed 3 times in 8 hours and require five minutes per doff.

Large Packages. Bobbins on the spinning frames carry about 11 ounces of 9-cut yarn as compared with one ounce of 9-cut yarn per bobbin on the mules. Although 9-cut is coarse yarn, the same ratio of bobbin capacity exists for finer counts.

A 15 hp motor is used to drive each of the spinning frames which carry four 30-end spools each. A 5 hp motor formerly supplied power to drive two mules in this plant, according to the management.

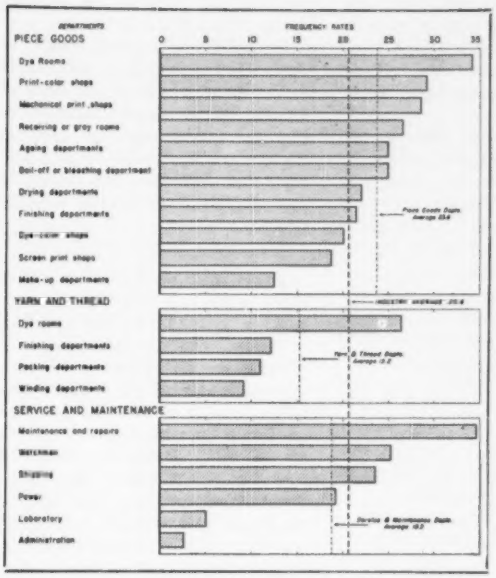
World Wool Position Surveyed

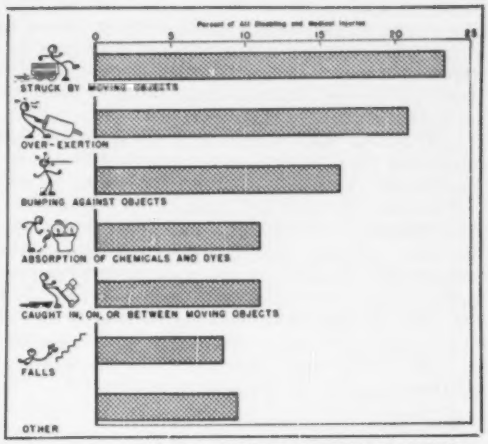
At the recent Third Meeting of the International Wool Study Group in London, England, post-war trends in world wool production, consumption, stock formation, and prices were studied.

The world wool situation over the last few years has been characterized by a modest increase in output and production is now approximately equal to that of pre-war though the output of merino wool is still somewhat below pre-war. The wool clip of the five main wool exporting countries is some 13 per cent heavier than before the war, but their merino clip is barely equal to the 1934-39 level. Wool production in the chief wool importing countries is beginning to expand again but their output for the 1949/50 season is unlikely to be more than 4/5ths of pre-war level.

World consumption of apparel wool in 1948-49 declined from the high level reached just after the war, but a further slight decline is expected during the current season. If the forecast of 3,528 million lb (greasy) for the current season is realized, it will exceed the current clip of apparel wool by 513 million lb.

On this assumption, world stocks which have been estimated at 2,961 million lb (greasy) as at 30th June, 1949, will decline to 2,448 million lb by the end of the current season. Stocks owned by governments and the Joint Organization are expected to be more than halved during the season—from 640 million lb to 317 million lb—while commercial stocks will decline by 9%.





U. S. Dept. of Labor, Bureau of Labor Statistics

MAJOR TYPES OF ACCIDENTS in the textile dyeing and finishing industry, year 1945.

DISABLING-INJURY-FREQUENCY RATES, by departments, for the year 1945.

Injuries and Accident Causes

in Dyeing and Finishing Plants

By MARION HAMMETT

EXCLUSIVE

INDUSTRIAL accidents can and should be reduced in textile plants. As an example, the Forstmann Woolen Company of Passaic, N. J., reduced its accident frequency rate by a safety plan set up in cooperation with its employees. During the four-year period this plan has been in operation, the rate was reduced by 84 per cent! You too can do this in your plant.

The rate of accidents in the textile dyeing and finishing division is much higher than the all-textile rate. The reasons for this high rate are varied, but a government study* shows that many of these can be avoided.

According to the study of the textile dyeing and finishing industry's accidents, there was one disabling injury for every 22 full-time operatives in the industry.

Cost in Lost Time and Payments. Without allowance for the continuing loss in production and earning power arising from the deaths and permanent impairments, it is estimated that actual time lost by the injured dyeing and finishing employees amounted to at least 72,000 man-days. On the basis of standard time charges for deaths and permanent impairments, it is estimated that the future economic loss accruing from the more serious injuries will eventually amount to at least 265,000 man-days — making the total employment loss about 337,000 man-days of work.

Studies have been made on the indirect costs of injury-producing accidents which show that they average about four times the direct cost of compensation payments plus hospital and medical payments. Assuming that this is a correct ratio for the dyeing and finishing industry, it may be estimated that the total cost is probably between 8 and 10 millions in one year!

The industry figures used here

*"Injuries and Accident Causes in Textile Dyeing and Finishing," Bureau of Labor Statistics, Dept. of Labor; Bulletin No. 962.

were based on the study of 446 plants engaged in dyeing and finishing yarn, thread, or piece goods. These plants reported a total employment of over 64,000, with more than 139 million employee-hours worked. The disabling injuries reported totaled 2,876 including 8 deaths and 129 cases of permanent impairments.

Practically all the unsafe conditions revealed by the study fell into three general groups: Hazardous arrangements or procedures (responsible for nearly 43 per cent of the accidents), defective agencies (responsible for 36 per cent) and improperly guarded agencies (for 19 per cent).

Hazardous Arrangements. Lack of proper lifting equipment or lack of sufficient help in lifting heavy objects was most common among the particular unsafe conditions included in this general group. Rolls of cloth and containers were involved in the majority of these lifting accidents.

The practice of moving rolls of cloth by hand and of hand-lifting the rolls into position on machines is quite common in the dyeing and finishing industry, even though some of the rolls may weigh as much as 500 pounds. In placing one of these heavy rolls on a machine the employee generally moves the roll as near to the machine as possible on a hand truck from which he lifts first one side of the roll and then the other.

Reducing Lifting Job. In one plant the problem was solved by plaiting all cloth into box-type hand trucks at the delivery end of each machine, which practically eliminated rolls of cloth in the processing operations.

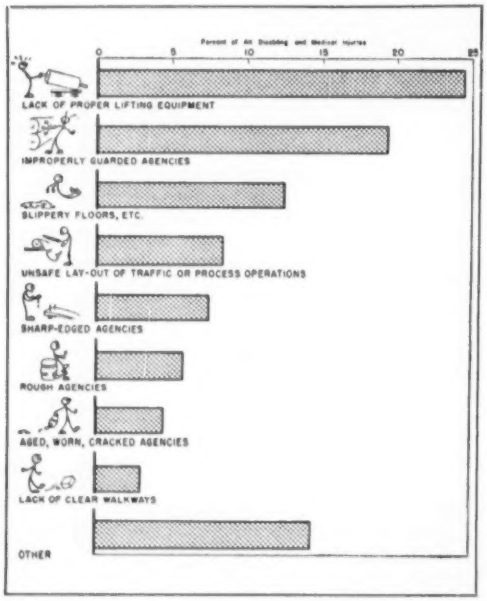
Another plant used specially designed hand trucks in place of the loading and unloading jacks at the entry and delivery of the machines. The cloth is threaded directly from one of these trucks through the machine and into a second truck at the delivery end, thereby eliminating the lifting at both ends of the machine.

Still another plant used powered lift trucks to place the cloth in the machines, and several plants had installed block and tackle equipment to do the lifting. One of the plants had also installed overhead rails on which the block and tackle with its suspended load could be moved from one operation to another.

Cloth Roll Storage Rack. To reduce the number of strains experienced by workers in the warehouse, one plant constructed special racks for storing rolls of cloth. By having these racks built to the same height as the beds of the hand trucks used in transporting the cloth and by limiting storage on the racks to one roll high, the cloth could be rolled on and off the hand trucks without lifting.

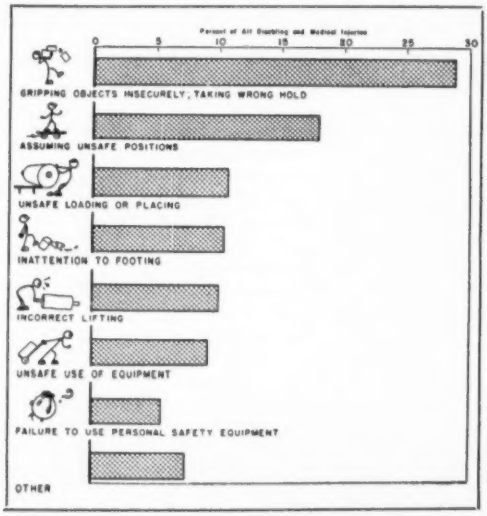
Knife Injuries. Extensive use of sharp knives to cut cloth constitutes a prominent hazard in the industry. The general failure to provide proper sheaths or convenient racks to hold the knives when not in actual use was responsible for a substantial volume of the reported injuries. Lacking these proper facilities the operatives commonly lay the knives on their work tables or on other nearby surfaces where they frequently strike against them as they move about in their work.

In a few plants where knives were not furnished and the workers were expected to tear the cloth whenever necessary, they frequently used their own pocket knives and experienced injuries



UNSAFE WORKING CONDITIONS in textile dyeing and finishing industry, year 1945.

Major types of **UNSAFE ACTS**, year 1945



when the blades snapped shut on their fingers.

Skin Infections. Skin infections are an outstanding problem in many departments of the dyeing and finishing industry. As individual susceptibility varies greatly, some plants attempt to meet the problem by transferring the more susceptible employees to other work. In other plants, regular medical examinations are given these employees in an effort to catch dermatosis in its early stages.

Heat and Fumes. Hazardous procedures in the use of machines were found to be many and varied. The operation most commonly resulting in injury, however, was that of threading heated drying cans, which produced a great many burns. Less common, but producing more serious injuries, was the practice of permitting operatives to enter heated or fume-filled chambers of machines to make adjustments.

One plant eliminated a hazard by placing the starch-mixing operation on the floor above the finishing room and running a pipe directly to the mangle from the mixing tank. This simple utilization of the force of gravity not only eliminated the hazards involved in transporting the starch, but also reduced the amount of labor required to place the starch where it was needed.

Housekeeping. Poor housekeeping was a common source of accidents in many plants. Cluttered working surfaces and passageways caused many employees to trip and fall, and unsafely piled or stored materials frequently fell on workers or presented bumping hazards.

Another hazard often resulting in injuries to machine operators and maintenance men was the general lack of a safe means of reaching the elevated parts of the machines. The provision of safe ladders or platforms for work at levels beyond easy reach from the floor would have prevented most of these injuries.

Wet Floors. Slippery working surfaces were an outstanding source of accidents throughout the industry, particularly in boil-off or bleaching departments, dye-color shops, dye rooms, mechanical-print shops, ageing departments, drying departments, and grey rooms. In most instances this hazard was due to water, printing colors, or dyes which had been spilled or splashed in the working areas. In a few instances, rough-grained concrete floors had been installed, and in some plants the employees were furnished with wooden clogs for use where the floors were generally wet.

Sharp edged agencies, such as metal tie bands on bales and crates, clips in the selvage of cloth passing through machines, and slivers projecting from shells which were rotating on machines, were particularly common sources of severe cuts and abrasions. Projecting nails or splinters on working surfaces, splintered handles and rough frames on hand trucks, broken floors, and rough or splintered benches, tables and chairs were also responsible for many injuries of this nature.

The prevalence of this latter group of unsafe conditions was a strong indication of the need for more adequate inspection and repair of the equipment, tools, and materials used in the industry.

Inadequate Guarding. The proportion of accidents ascribed to inadequate guarding was unusually high in the dyeing and finishing industry—19 per cent as compared with less than 10 per cent in most of the other industries surveyed in recent years. The importance of this group of accidents, however, is even greater than is indicated by its volume. In general, accidents arising from inadequate guarding tend to produce serious injuries.

Machines, boilers and other pressure vessels, containers, and working surfaces were most frequently involved in accidents resulting from inadequate guarding. In the machine group, unguarded gears, belts and pulleys were the most common sources of injury.

In two plants visited this problem had been given careful study and guards had been designed. One of these, a gate guard, had not yet been installed, so its effectiveness could not be checked. The other, which was operating satisfactorily, consisted of an electric eye, across the front of the machine, which activated a brake on the motor when the operator's hands entered the danger zone.

Unsafe Acts. Most of the accidents attributable to unsafe acts fell into two general groups: Nearly 40 per cent resulted from the use of unsafe equipment or the unsafe use of equipment, and 38 per cent from the operative assuming an unsafe position or posture.

Inattention to footing and unsafe lifting were the outstanding unsafe acts in this general category.

Metric Yarn Number System Favored by ICS Students

A recent survey conducted by International Correspondence Schools to determine which yarn numbering system would prove most acceptable to those in the textile industry, revealed that 38% of approximately 2000 students reporting favored the Metric System.

To obtain the opinion of the students, most of whom are employed in textile mills, the following question was incorporated in the ICS instruction text on Yarn Calculations: "If you could enforce the introduction of a uniform yarn-numbering system, which system would you choose? State your reasons."

Tabulation of replies received produced the following results: Metric System, 38%; Typp System, 22%; Cotton System, 16%; Integral System, 7%; Grex System, 2%; Denier System, 1%; any reciprocal system, 10%; any direct system, 4%.

Reason for the preference of the Metric System seems to be that more and more mills are adopting testing laboratories and that more and more testing machines are graduated in grams, centimeters, and other metric measures.

Textile Industries *Presents* ——— **A Special Number**

Modern Production Methods

Modern Production Issue: In this issue the reader will find not only the regular feature-length articles which tell the complete story, but a number of short, to-the-point articles which emphasize what mills are doing to:

(1) Increase production
(2) Lower operating costs
(3) Improve quality
(4) Utilize manpower more efficiently
(5) Reduce and control waste
(6) Secure improved operating conditions

—all by the proper use of equipment, accessories, and services which have been made available, by suppliers and engineers, to the textile industry.

The articles in this special number are actual case histories. Performance of equipment has been proved in production. In many instances the actual savings are shown, or the return on the investment is stated.

In order to be of assistance to the reader, the name of the concern furnishing equipment or service is given.

Should a mill desire to check or compare its own progress, or to make plans for the future, three recent issues of this magazine could well serve as the basis for this check-list: this Modern Production number; the October 1949 Equipment and Processing Review; and the February 1949 Modern Production issue.

Case 1

Vacuum Stripper Reduces Costs in Carding Department

Vacuum stripper saves 16 man-hours per eight-hour shift and improves cleanliness and quality of work.

A LATE model vacuum card stripping system was installed in the carding department of the Crystal Springs Bleachery Co., and numerous benefits were reaped, according to a representative of the plant. In order to give a clearer picture of the advantages, it is desirable to describe conditions before the changeover.

Old System. There are 108 cards in the carding department, and they are stripped three times per eight-hour shift. It was necessary to use two strong men on this job to handle the old-fashioned unwieldy wood roll which was covered with stripping fillet.

It took approximately one and one-half hours to complete a stripping cycle, and the results were unsatisfactory. If the stripping stands were set close enough to remove all of the impacted fibers in the cylinder and doffer clothing, there was the danger of setting too close and ruining the foundation of the card clothing. As a result, the cards were never stripped properly, and a large amount of neps and mote-specks went through in the card sliver.

The stripping roll operated at a high rate of speed and kept a cloud of dust in the room which the operatives had to breathe. This made it impossible to keep the room and machinery even reasonably clean. The dust settled in the work and lowered product quality.

The stripping roll was so heavy that it was a common thing for the men to miss the stripping brackets, because they had to throw the roll into stripping position, and much stripping fillet was destroyed because the roll frequently struck the grinding brackets.

A third man was needed to haul out card waste; this included card strips, card fly, card sweeps, and picker motes, which were later baled in the press room for resale. This man was also required to haul out white waste from cards, much of which was made by the men as they stripped the cards. The white waste was carried to the opening room for reworking.

Since the vacuum stripping system was installed the card

room has the appearance of a new one.

New System. All parts of the new stripping system are located overhead and are out of the way. The conveyor pipe goes through the wall at the top of the card room and across the top of the warehouse and into the room where the vacuum tanks are located. The tanks are located near the baling press, making it convenient to unload the waste from the tanks and bale it immediately.

With the vacuum stripping system, one man can do all of the work formerly done by two men and one waste hauler, and one man gets the job done better than three men did before the change. This permits the two extra men to work on other jobs, which means a total saving of 16 man-hours per eight-hour shift, or 240 man-hours per week, on a three-shift basis, five days per week. This saving in itself would eventually pay for the new system, but it is not considered the greatest advantage.

Now the 108 cards are stripped in approximately one hour, three times per eight-hour shift, and they are stripped clean. This has improved the quality of work considerably.

More Production. Production is increased because the stripping is accomplished much faster and the cards are never stopped. The cards are out of production two minutes per stripping, and several cards can be stripped at the same time.

Dust is no longer a problem for all of the dust is drawn into the vacuum nozzle with the card strips. The same vacuum system also is used to remove the fly from beneath the cards and to remove picker motes from beneath pickers.

This leaves only the white waste from cards and card sweeps to be hauled out in boxes, and this is held at a minimum because there are not as many ends down on cards as formerly, and the floor doesn't get as dirty as it did formerly. The man who strips cards also hauls out this waste. He empties the vacuum tanks when full, cleans up the tank room, and carries out bad picker laps when any are made. It may appear that this man has an extremely hard job, doing all of the work connected with the vacuum stripping system, but it is easy compared to the job of stripping with the old wood roll.

The vacuum system is simple, and it is easy to teach anyone to operate it. Thus far the upkeep has been very low. Few actual figures are given in this instance because the difference in various card rooms means a difference in the cost of installation, upkeep, amount of increased production, and improvement of the quality of the work.

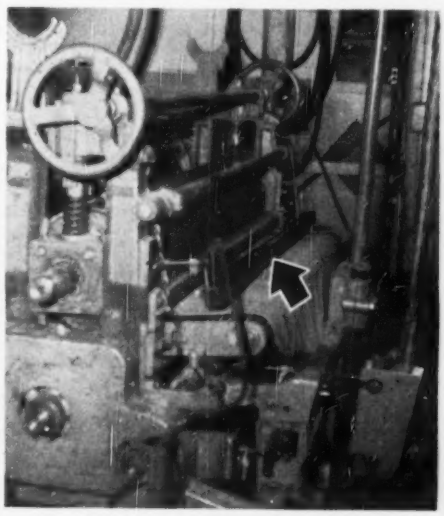
Case 2

Statie Eliminator on Peralta Delivery Improves Stock Blending

HIGH ROCK Mills were confronted with a serious problem of "hard to handle" webbing which was delivered from Peralta rolls at the breaker card. Investigation showed that static electricity generated by the crush rolls rotating under severe pressure charged individual wool fibers and interfered with proper web formation.

Chapman static neutralizers were installed in an attempt to improve stock delivery. The device proved so successful that each card set was similarly equipped. No further trouble due to static has since been encountered.

One of the principle benefits



Chapman static neutralizers were installed on Peralta roll deliveries, eliminating frequent piecings and saving time in addition to making a better quality finished roving.

accruing from the installation has been an improvement in stock blending at the intermediate card. Electrostatic charges which wool fibers accumulated after deburring caused each fiber to repel, making an effective homogenization nearly impossible. Dissipation of these charges by the electrical neutralizers make fibers more amenable to handling.

The frequent piecings of ragged or broken static charged web has also been eliminated, tending to save production time and make finished roving of a higher uniformity.

Mounting of the neutralizer is simple. Caution should be taken that sufficient clearance betwen the bar and stock is allowed.

Case 3

Unique Arrangement Effects Economies in Blending and Feeding

Relocating opening machinery in basement simplifies stock handling and storage. Less labor required to operate opener room. Operatives' tasks made less laborious.

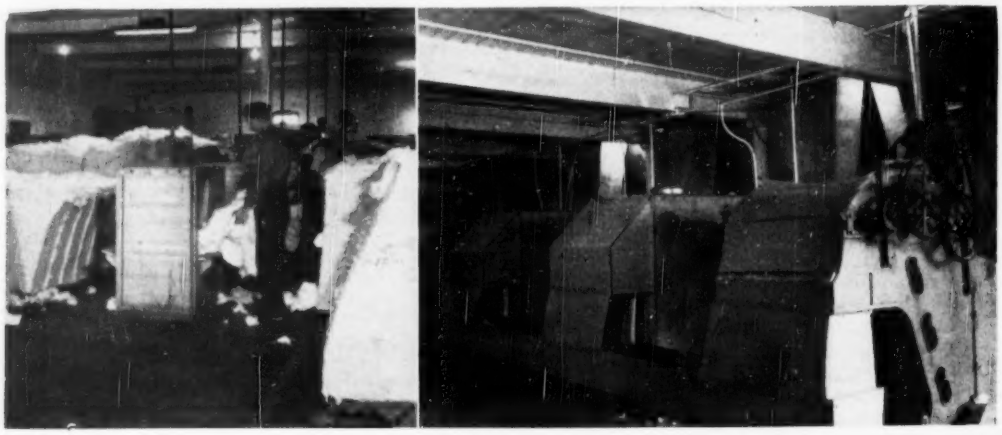
BEFORE the present system was placed in operation, all opening machinery at Huntsville Manufacturing Co., Huntsville, Ala., was located on the ground-level floor of the same building in which the supply of baled cotton was stored. The building is situated on a slope, and the basement entrance at the rear of the building is also at ground level. The basement was used for storage space.

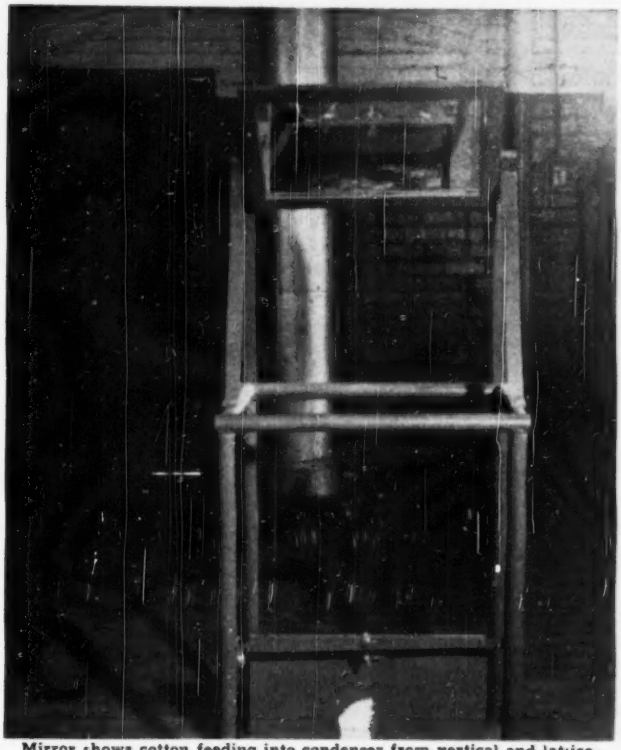
Stock Handling Now Simple. Upon investigation, the management decided to relocate the opening machinery and place it in the basement room which was formerly used for storage space. The change greatly simplified handling and storage problems in that more space is now available on the ground-level floor, and feeding stock to the blending feeders requires less labor.

Chutes were provided so that the blending feeders can be fed from the floor above the machinery, and the task is much less laborious for the operatives who feed the machines (see accompanying photos). In feeding the chutes, it is not necessary to lift the stock above knee height; therefore the operatives do not become fatigued in doing the work.

Before the change was made, it was necessary to open the bales of cotton in another portion of the building and then transport them to the blending feeders. Furthermore, the storage space on the basement level was not an easily

Ground-level floor space formerly occupied by opening machinery is now used for laying out stock and feeding opening machines through chutes. Right, line of blending feeders in the opening room which is now located on the basement floor. Note chutes through which stock is fed from the floor above.





Mirror shows cotton feeding into condenser from vertical and lattice opener which is fed by conveyor from hoppers. If any of the machines get choked up, the condenser shows empty in the mirror, and someone can go to the basement and remedy the trouble.

accessible location for storing material which had to be moved in and out from time to time.

Saves Labor. The opening machinery fits neatly into the basement area, and the floor area above the machinery is used for bale storage, laying out stock, and feeding through the chutes. The number of operatives required for moving stock, hauling, and running the opener room has been reduced by the new and convenient arrangement.

To eliminate the necessity of having two crews, one to feed the chutes and another to stay in the opener room to watch for chokes, fires, proper feeding, etc., a mirror was placed over a hole in the ground level floor. The hole is above the lattice opener, and the mirror reflects an image of the stock feeding into condenser from vertical and lattice openers which are fed by conveyor from hoppers.

The foregoing arrangement permits operatives working on the ground-level floor to observe the flow of stock in the opener room. When a choke occurs, the image in the mirror shows that the stock has ceased to flow, and someone can go to the opener room to relieve the trouble. Periodic checks are made on opening machinery when the operatives are not busy elsewhere.

A float-type level gauge is attached to each of the chutes to show when the stock needs to be replenished. This feature permits the operatives to attend to other duties while they are not feeding the chutes.

Case 4

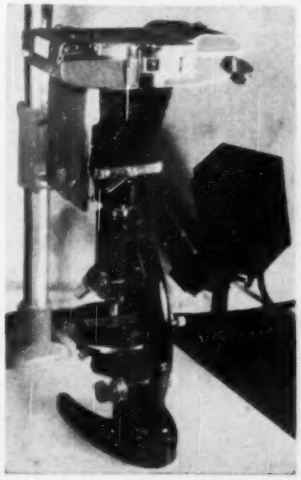
Land Camera Aids Laboratory Work

SEEKING means to record quickly and accurately subvisual textile phenomena as occurring under the microscope, textile technicians have resorted to the radically new Land Polaroid camera. The technique has been predominantly successful. Photomicrographs can now be taken with assurance that the slide subject has been perfectly rendered.

Light sources and microscopes are identical to those used for normal 35 mm camera work, but

Set-up for Polaroid camera photomicrography is no more complicated than that required for conventional camera.

Photo courtesy American Cyanamid Co.



the advantage of the Land type camera is that photographs are instantly available. The subject can be rephotographed until the most exacting specifications are complied with. Time consumed in producing a series of expertly defined photomicrographs is negligible.

Camera adjustments can be repeatedly altered until the desired lighting, contrast, and focus are obtained. Successive exposures are pulled out of the camera back by a separable paper tab attached to the print. Prints (approximately 2¼"x3¼") are sepia toned, developing within the camera in a matter of seconds.

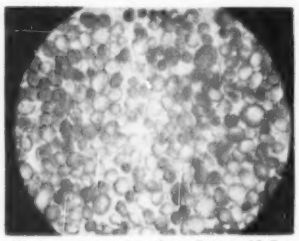


Photo courtesy American Cyanamid Co.

Land Polaroid camera photomicrograph of a wool cross section showing effect of high temperature dyeing.

The camera lens is set at infinity, and no adapter lens is required between the camera and the microscope. Initial focusing is made on a ground glass with the back of the camera opened. Subsequent focusing is done with a telescope also focused at infinity or 100 feet. The camera can be set up in a matter of minutes and is still available for ordinary photography.

There are eight settings on the shutter-aperture combination. The wide open setting is equivalent to ⅛ sec. at f4.5. The camera is used with this aperture opening but set on bulb instead of instantaneous and given about a one-second exposure.

With the introduction of speed finishing to the textile laboratory, important and non-reproducible slides need never be lost to personnel errors in photomicrographic methods.

Case 5

New Reelers Produce Uniform Skeins for Weight and Strength Tests

UNDER the exacting conditions required in a testing laboratory, Springs Cotton Mills, Lancaster, South Carolina, has found the Fidelity skein reeler to be satisfactory in their application.

One standard Fidelity skein reeler specially adapted to the specifications of the research and testing department, has replaced three conventional hand operated reels and three operators with only one part time operator.

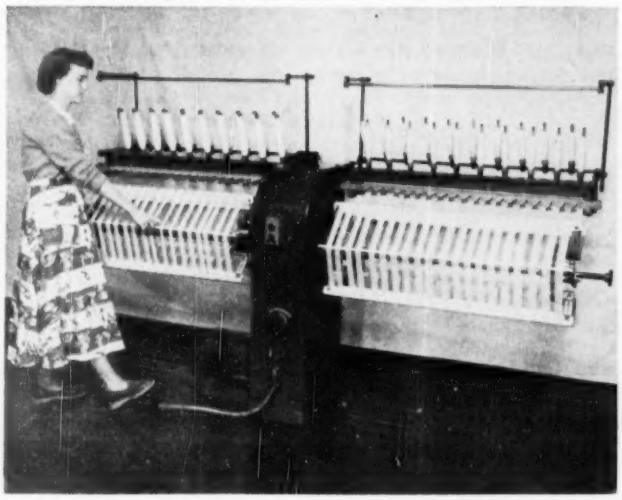
Laboratory requirements call for 40 strands of yarn laid side by side on a 1" spread and 40 turns on top of the first. Both layers are regulated by a constant rate of travel cam. Both ends lie at one side of the skein and are tied together to form an endless 120-yard skein ready for testing.

Using skeins for weight and strength tests, it is necessary that each skein consist of exactly 80 turns, each 54" long. With the automatic counter, the reeler can be preset to within 1/3 revolution of the exact requirements. Then the foot brake release permits turning the reel by hand to the proper position for tying.

The adjustable speed feature of the Fidelity reeler allows the selection of a predetermined speed which, when set, is constant for all skeins reeled. This is important in laboratory testing.

Since all operations are performed from the front, the skein reeler is placed against the wall, saving floor space. The spindles

Special laboratory skein reeler in operation at Springs Cotton Mills.



are made to fit either warp or filling bobbins and are arranged in two banks of 10 on each side. This arrangement permits the reeling of 4 to 10-bobbin routine test samples at once. For special tests where two skeins per bobbin are made, the first 20 skeins are reeled, the guide is shifted over, and the second 20 skeins are reeled in alternate spaces beside the first. This places two skeins from the same bobbin together.

Savings are apparent at Springs through reduction in labor costs and through the constant speed and automatic knock off which assure uniformity of each skein.

Case 6

Tractor-Trailer Units and Ramp Save Labor and Materials

Uninterrupted flow of traffic between mill units made possible by new ramp and canopy. Tow motors used to haul cloth and starch on new causeway. Increased efficiency and labor savings amount to $4000 annually.

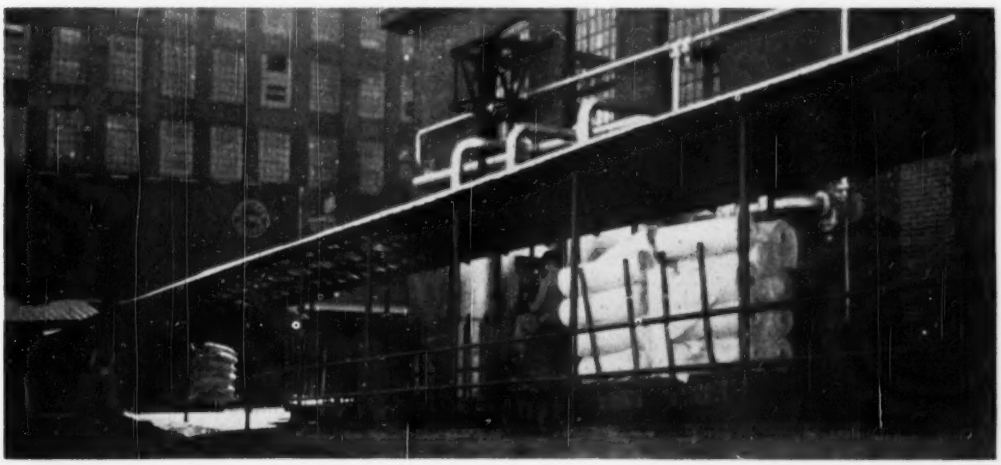
ONE Alabama mill has improved its materials handling operations by replacing a 250' ramp which served to connect two separate units of the mill. The old ramp was four feet wide and had no canopy or roof to protect traffic during inclement weather.

Sheltered Ramp. The new ramp is nine feet wide and spans the 250' open-air distance between Mill No. 1 and the cloth room in Mill No. 2. A roof was erected over the new ramp to allow traffic to travel between the two mills in any kind of weather. The roof is high enough and the ramp wide enough to accommodate a tow motor pulling several trucks loaded with cloth, and there is adequate room for pedestrians to pass the loaded tow motor.

Prevents Damage. The improved causeway between the mills eliminates the danger of soiling the cloth in case of rain or bad weather. Formerly, two men were employed to drive gas powered vehicles and assist in moving the cloth and starch between the mills. These two men occasionally hauled freight from the railroad depot to the mill. The mill contracted a trucking concern to haul freight from the depot and transferred the two mill drivers to other jobs in the plant.

A tow coupling was installed on all cloth trucks from Mill No. 1, and a similar coupling was installed on a tow motor. The hitches are easily connected with a pin, and the cloth trucks are pulled over the ramp to the cloth room by tow motor. The regular tow motor operator performs this job. Another tow motor operator had the job of transferring starch to both mills from the warehouse. He continues to perform this job, and the ramp speeds the hauling job. A careful study of

Sheltered ramp permits traffic between mills without damage to cloth and starch during bad weather.



costs was made, and although the cost of hauling freight from the depot will be $1000 each year, and the new ramp cost $2500, the company will save $4000 annually through increased efficiency and labor costs. In addition, maintenance of a truck to haul freight from the depot has been eliminated.

Case 7

Pin Drafter Gives More Production and Better Quality in Worsted Mill

INTRODUCED to the industry just two years ago, The Warner & Swasey Pin Drafter is making an important contribution to increased yarn production at substantially lower costs in a number of mills.

Based on the screw gill principle, the pin drafter incorporates design refinements and precision construction which enable it to do a better, faster job in extending the field of pin control over lightweight sliver to the reducer stage of the Bradford system, the fore-finisher of the French system, and the long-draft roving frame of the American system.

Actual production records from a large worsted mill illustrate the performance capabilities of the machine on lightweight sliver.

Old System. Prior to the introduction of the pin drafter, this mill had been operating on a Bradford set-up involving the sequence shown in the accompanying table.

New System. In replacing this conventional operation, a new pin drafter arrangement reduced processing steps and equipment as shown in the accompanying table.

Deliveries Reduced. The most obvious result of this equipment changeover is the reduction in deliveries, which went from 136 under the previous Bradford system to just 22 under the pin drafter set-up.

This made possible a reduction in operators from 5 to 2. Machine attendance was further simplified because the pin drafters deliver a uniform 21-pound package at every station, whereas the earlier set-up had required the handling of various sized packages ranging from 11 pounds to 3 pounds.

Increased Production. Production shot from 31 pounds per operator hour under the old system to 105 pounds per operator hour under the new arrangement. Waste, meanwhile, went from 5½% down to 3½% because of the more precise control exercised by the new machines.

More Yarn Strength. Another measure of the improvement in process control brought about by the new system is the tensile strength of the yarn produced, which averages 10-15% above that formerly produced.

Cleaner Yarn. Mill personnel report that the new system produces a cleaner yarn also, reducing the number of yarn and cloth defects which require costly attention in subsequent processing. And the final cloth product, it is pointed out, is loftier with a fuller

Battery of Warner & Swasey Pin Drafters reduces thenumber of deliveries in extending the field of pin control over lightweight sliver.

BRADFORD SYSTEM FORMERLY USED

			Package Size
1.	Double Can Gill Box	2 Heads	11 lb
2.	Two-Spindle Gill Box	4 Heads	10 lb
3.	Six-Spindle Draw Box	6 Heads	8½ lb
4.	Eight-Spindle Draw Box	16 Heads	7 lb
5.	Twenty-Eight-Spindle Draw Finisher	28 Heads	4 lb
6.	Forty-Spindle Reducer	80 Heads	3 lb

PIN DRAFTER SYSTEM NOW USED

1. **First Pin Drafting: two double-head ball-creel can-delivery pin drafters.**
2. **Second Pin Drafting: three double-head, can-creel, can-delivery pin drafters.**
3. **Third Pin Drafting: three quad-delivery can pin drafters.**

and more kindly handle.

Now in production is a balling head delivery for the pin drafter which will further extend the usefulness of the machine. Taking sliver from the comb, a single balling head pin drafter will produce a higher quality lightweight ball top than is now obtainable after two finisher gill operations. Such ball top will enable two pin drafting operations to accomplish in the yarn mill the same process presently requiring three pin drafters, or six conventional gilling and drawing operations. The balling head winds a tight, hard ball of approximately 21 pounds which will also simplify shipping and handling problems.

Case 8

Centralized Lubrication Saves Oil and Cleaning

PIEDMONT Cotton Mills, East Point, Ga., installed the Bijur centralized lubrication system on one spinning frame February 2, 1948. This frame was operated for approximately two months and performance was noted to be satisfactory, so the management had the system installed on ten additional frames.

The eleven frames were so grouped that efficiency and performance could be noted and compared with other frames.

The improvements in the operation of these eleven frames are noted by the mill management as listed here:

1. Less oil is used. There is no wasted oil.
2. Inside of machine heads can be kept cleaner for better operation in that no waste oil is thrown about.
3. Oil cups are completely covered, thereby eliminating lint in bearings.

In this plant a periodic check is made to be sure no lines are left out of bearings or pipes broken or loosened. The system is found to be very efficient, according to this mill, and other production machinery is being equipped with the system.

Case 9

Waste Control Effects Savings

ESTIMATED savings of more than $50,000 per year have resulted from the installation of a waste control system in a 16,000-spindle, 325-loom cotton mill in South Carolina. The Wastemeter or waste control system, originated by Barnes Textile Associates, Inc., was installed through their Spartanburg office.

In setting up the Wastemeter, the engineers first made a thorough study of the plant, concentrating on the locations at which waste, both salable and reworkable, is produced. With scientific data and statistics before them, the engineers then proceeded to set up standards for the amount of waste at each stage from opening through the cloth room. These standards were not guesses or ideals based on wishful thinking; they were practical standards which could be accomplished through good management and efficient labor, without increasing labor's work load.

The studies determined the amount and classification of waste which should be made on efficiently operated equipment at each process in the mill.

Establishing these standards involved considerable technical work, but the standards themselves were of no practical value until the mill management put them to use. Standards are measuring sticks, and they add nothing to the value of the product. Like all other measuring devices, they only show what has been accomplished; the accomplishment is up to management and labor.

Waste Costs Determined. After standards were established, cost studies were made to show the cost of both salable and rework-

able waste at the point it is produced. Obviously, waste at the looms is much more expensive than waste at the picker, pound for pound. Loom waste carries with it the labor and the overhead cost of mill operation up to that point, as well as the cost of the cotton. Picker waste carries with it little more than the cost of the cotton. Between these two extremes, the cost was determined for waste at every point in manufacture.

Barnes engineers then used their forms and reports to show actual waste figures at each waste producing point.

The measurement is made through the use of weekly reports reflecting the variance between actual and standard waste allowances in dollars and cents.

Loss Control. Having this report, the mill manager and the superintendent know where improvement is needed. Foremen and machine operators at the waste points are shown how they stand and are encouraged to meet the standards or beat them. Where excessive waste exists, if after investigation it is found to be beyond their control and is the fault of the equipment, management knows when the equipment needs to be overhauled, redesigned, or replaced.

Contrary to the ideas of many mill men, as a result of the Wastemeter, it was found that reworkable waste at certain points was responsible for more dollar losses than salable waste when permitted to exist in excessive quantities.

Using these reports and being guided by them, the management of this particular South Carolina mill was able to achieve remarkable results. Using 100% as standard for the volume of waste, total waste produced in the mill in January, 1949, was running around 137%, or 37% greater than the standards allowed. By using the weekly reports as a guide to indicate excessive waste points, and by correcting the trouble at these points, the mill had, by August, 1949, reduced some of its classifications of waste to better than the standard.

Savings. In terms of dollars and cents, the mill finds that these reductions in waste are equivalent to $50,000 on an annual basis.

The management is now concentrating its attention on those waste points and classifications where the actual waste is still in excess of standard.

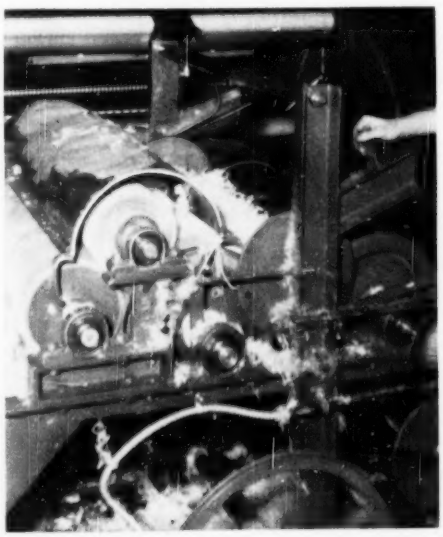
In the weave room where the waste has already been reduced from 170% to 147% of standard, their efforts are showing a constant or steady decline every week, and management is satisfied that with continued effort this type of waste can be brought in line with standard. This reduction will reflect a further saving of $500 per week in addition to that already indicated, or another $25,000 on an annual basis.

Case 10

Automatic Jack Spool Doffer Keeps Spools in Production

AMONG the latest contributions to wool carding and spinning is an automatic jack spool doffer now in use by a prominent New England mill. Electrically operated, the device strips waste roving from spool barrels quickly and safely without damage.

Jack spools normally require stripping by means of a sharp blade which would sever the roving and cause it to unravel. This method is laborious as well as dangerous. A slip of the knife



Automatic jack spool doffer in operation at High Rock Mills.

could inflict a painful wound upon the jack spool doffer. At the same time, spool barrels would be scored and mutilated. Replacement rates are high and costly.

The new doffing equipment conserves jack spool barrels. No element of the mechanism touches any part of the spool. Waste wool on spools (from first runs off the card or doffed from spinning frames) is effectively lifted from the barrel by high speed wire brushes. The spool is revolved against a drum to bring all of the fibers in contact with the brushes.

A stripping roll cleans the brushes and delivers the fiber to another roll against which a doffer comb works. A fine web is deposited at delivery end by the comb. The fiber is in perfect condition for loading into card hoppers again.

All fast moving hazard components of the machinery are protectively covered. Spool axles slip into grooves of the framework slanted to cause the spool to drop against the rotating brush without manual aid. Roll settings can be adjusted for any quality of stock or any desired rate of production.

As a result of this novel installation, spools are being conserved and fewer spools are needed for inventory. Rapid stripping permits "dead" spools loaded with waste wool to be brought back into actual production with a minimum lapse of time. The safer automatic jack spool doffer is also saving labor. Any of the card room operatives can run the machine. There needn't be a permanent job classification for this duty. The machine is operated by a spare operative as undoffed spools accumulate, depending upon the current production situation.

Case 11

Revamped Boiler Room Improves Efficiency

Relocating compressors saves $5200 per year in maintaining compressors and boilers. Pulverizers effect 25% reduction in coal consumption.

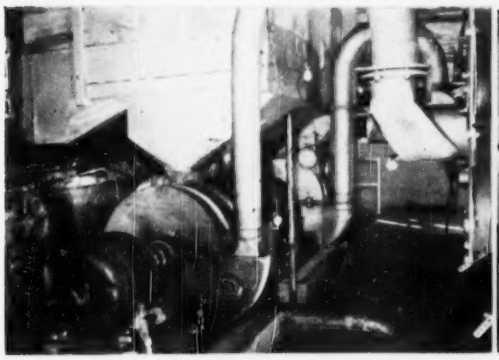
FORMERLY four compressors were scattered at different locations in one large textile mill. Boilers and compressors were consolidated into one room; namely, the boiler room. Two boilers were removed because they were no longer needed. They were formerly used when the mill was utilizing Corliss steam engines for power.

Less Maintenance. By moving all of the compressors to one central location, maintenance costs were reduced $5200 per year for running the compressors and boilers.

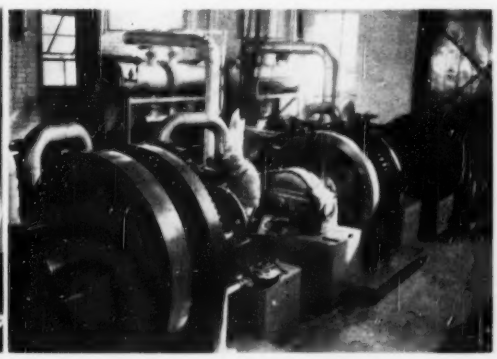
Two coal pulverizers have been placed in operation. One large pulverizer is used in the winter months, and in extremely cold weather both the large and small pulverizers are used to fire two 325 hp boilers. The small pulverizer is operated alone during the summer months.

The entire boiler room of this mill was reworked in the process of replacing baffles and fire brick in the boilers. Two of four boilers were completely removed, and the

Replacing two old model stokers, these two coal pulverizers have reduced fuel consumption at least 25%.



Showing three of the four compressors that were grouped in the boiler room to reduce maintenance.



additional floor space was utilized to combine all of the compressors under the same roof and in the same room. Formerly the compressors and boilers were in separate buildings.

Fuel Consumption Reduced. Old model stokers were replaced by two new coal pulverizers. The pulverizers are controlled by dampers in the boilers, and they operate automatically. The burners used with the pulverizers can be adapted for gas or oil, should it become necessary to change to some fuel other than coal.

The new pulverizers and the accompanying changes in the boilers have reduced the consumption of coal 20 to 25 per cent. It is possible to use cheaper coal of a lower grade with the new changes in effect. The cost of pulverizers and changes incorporated in the boilers, including all labor and installation, was approximately $18,000. The changes will pay for themselves in less than two years, according to mill officials.

Case 12

Continuous Washer Diminishes Costs In Woolen and Worsted Scouring

Washer features fast operation and saves labor, water, steam, power, soap, and alkali.

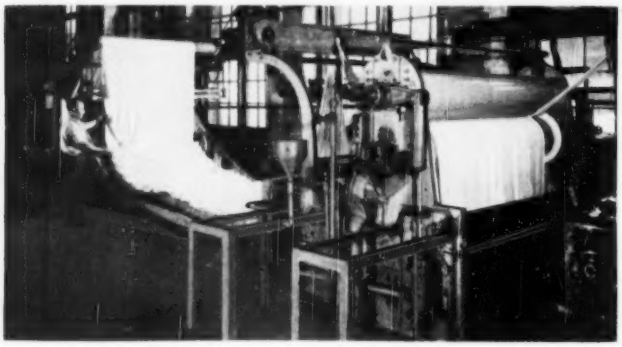
YORKSHIRE Worsted Mills, Leni Mills, Pa., have installed a tensionless continuous cloth-scouring machine designed by James Hunter Machine Co. The machine makes a continuous operation (on worsted cloth) of fulling, scouring, extracting, and drying. This equipment will process woolens continuously from scouring through extracting and drying, after the fulling operation.

Construction and Operation. The washer has a cast iron frame and nine bowls. The goods are sewn together and threaded through the machine in slack loops of from 15 to 30 yards in length, and the slack loop allows the material to balloon and change folds throughout the cycle to insure even scouring.

The rubber-covered nip rolls are controlled by pneumatic pressure and administer an average of 14 nips per bowl. The total nips give approximately 40% more squeezes than a conventional washer in its entire cycle.

The first bowl performs the soaping operation; the second bowl contains alkali; and the goods then enter the rinsing bowls and progress through the machine in one direction only. Tension is controlled between the rolls by a compensating dance roll and patented range drive. The rinse water is relayed from the finishing bowl to each preceding bowl so that the cloth progresses through a replenished supply of clean water.

One bowl of a tensionless continuous cloth-scouring machine. The rubber covered rolls are controlled by pneumatic pressure and administer an average of 14 nips per bowl, and the washer has nine bowls.



Savings Effected. Yorkshire reports that all of the forementioned operations are handled by only three men at a continuous rate of 50 yards per minute. Nine men were required to perform the scouring operation with the conventional washers formerly used. This was in addition to the labor required for extracting and drying. In the continuous washer, water consumption is approximately six to eight gallons per pound of clean cloth, as compared to approximately 50 gallons with the conventional washer.

Additional savings can be estimated in view of the fact that this water must be softened, filtered, and heated. One of the larger worsted mills reports the follow-

ing savings in soap: using a 5c soap, in 1933 the cost per pound of clean cloth was $.0103. Current costs, using a 17c soap with the continuous washer, amount to $.0093 per pound of cloth scoured.

The Chatham Manufacturing Company, Elkin, N. C., reports that its installation runs at 40 yards per minute and saves 60% labor, 75% water, 75% steam, 35% soap and alkali, and over 50% in power required to run the processing machinery.

Case 13

Quill Conveyor Lessens Handling Operations

Conveyor belt reduces number of filling boxes required, saves time and labor required to transport quills, reduces quill breakage, and conserves floor space formerly required for storage of quill boxes.

A QUILL conveyor serves to transport empty quills from the weave room on the first and second floors to the spinning room on the fourth floor in one southern mill. Bins on the first and second floor weave rooms are made so that empty quills may be dumped in the bins from which they are fed to an endless belt. The bottom of the bin is sloped so that the quills are fed by gravity to the conveyor.

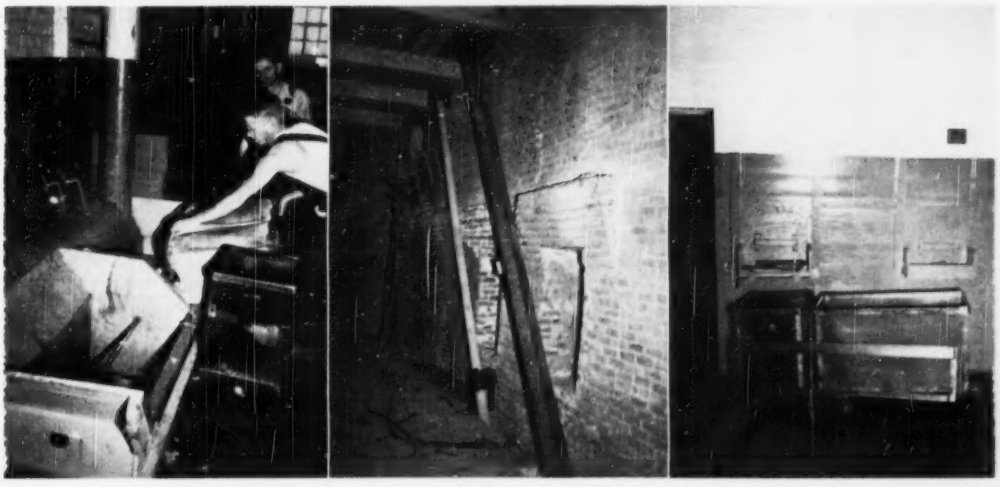
The endless belt has small lugs spaced at appropriate intervals to catch the empty quills as they are fed and transport them upward to the fourth floor spinning room. There the quills are dumped from the belt into a bin which is accessible from the spinning room. Doffers in the spinning room may fill their quill buggies by merely opening the bin door and allowing the quills to fall into the buggy.

The conveyor belt eliminates the need for a large number of filling boxes to hold and haul the quills to the fourth floor. Floor space which was formerly required for quill boxes and storage is now available for other uses.

Operations are made more efficient in that it is no longer necessary to expend considerable time and labor to transport and handle quills. Furthermore, a saving is effected in that quill breakage has been reduced. The conveyor has eliminated several handling operations that caused quill breakage.

Cost of the belt, installed and ready to function, is approximately $500.

Left to right, full quills are dumped into a chute which directs them to reservoirs in the weave rooms on the first and second floors. There they are easily accessible for the battery filler. Bins on the first and second floor weave rooms are sloped so that the quills are fed by gravity to the conveyor which transports them upward to the spinning room. Doffers in the spinning room may fill their quill buggies by merely opening the bin door and allowing the quills to fall into the buggy.



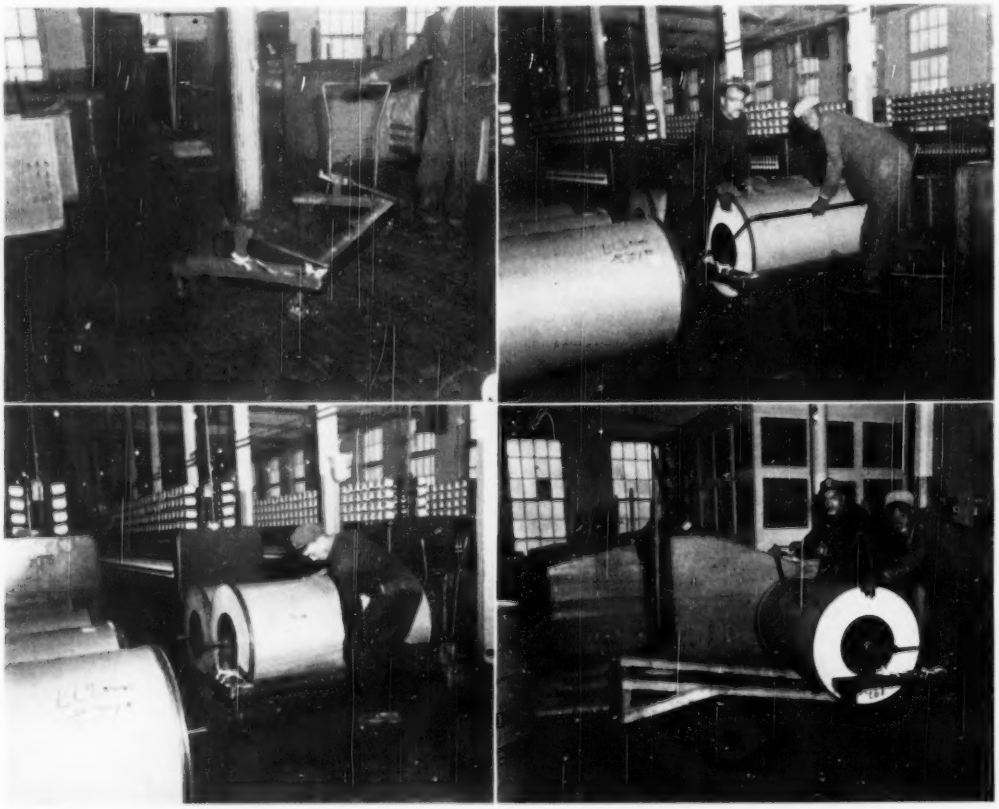
Case 14

Hand Truck for Moving Heavy Beams Provides Solution for Handling Problem

THE heavy beam truck (shown in accompanying photos) is used at the Arlington Plant of Textiles, Inc., Gastonia, N. C., for lifting heavy beams from the floor and moving them about the mill and to the loading platform.

As may be seen in the photographs, the truck consists of a framework of steel beams mounted on heavy casters. Attached to this framework is a levered lift bar, so arranged that when a beam is in place, the bar may be lowered and clamped in place, raising the beam from the floor. The truck is then pushed about on the heavy caster wheels,

Upper left photo, the empty truck showing its design. The notches on the end of the lift bar fit over the axle of the beam to be moved. Upper right, the truck moved into place. The truck is moved into place against the beam and the notches in the lift bars placed under the axle. Lower left, one man can push the lift bar down and latch it. This raises the beam by its axle, and the beam may be easily moved about. Lower right, moving the truck up to an incline, which is the height of a dolly, makes an easy job of moving it onto the dolly and into the truck.



and the framework of the truck is three sided, one side being left open so that the truck may be positioned for lifting a beam.

The truck is used in moving heavy beams from storage to a dolly used in loading highway trucks and railroad cars.

Case 15

New Finishing Equipment Cuts Costs and Improves Quality

THE Talbot Mills, North Billerica, Mass., installed a Riggs & Lombard Derby dry cleaning machine to take care of their cleaning operations on soiled goods. The reported savings through use of this equipment is approximately four cents per yard of cloth processed at Talbot Mills.

The advantages and savings are itemized as follows:

1. Removal of tar, paint, asphalt, creosote, pigment, chalk, and other contamination from fabrics.
2. Almost any type of wool oil can be used, including inexpensive mineral oils.
3. Oil savings made possible through reclaiming.
4. Elimination of steam contamination from oil residue.
5. Reduces burling and mending.
6. Reduction in perching.
7. Cloth has minimum oil content when it reaches finishing room.
8. Scouring usually eliminated.
9. Little or no soap required.
10. Saving in hot water.
11. Reduction in re-dyes and seconds.
12. Better quality fabric.

THE Arlington Mills, Div., of the William Whitman Co., Inc., Lawrence, Mass., installed a Riggs & Lombard Fleet Line yarn steamer and conditioner. According to reports from the mill, production was increased and they realized a substantial saving in the amount of steam used as a result of the new installation.

The four-truck steamer is fully insulated, and the complete steaming and conditioning cycles are automatically controlled. Varying steaming and conditioning cycles can be obtained by simply resetting the timers, and the wet-bulb temperature can be varied up to 210 degrees.

During the steaming period, hot saturated air is forced through the trucks of yarn, and likewise during the conditioning period cooler and dryer air is blown through the trucks, thereby thoroughly penetrating each bobbin or package. Under these conditions exceptional uniformity from bobbin to bobbin and batch to batch is obtained. The yarn is cool as it comes from the machine; therefore it does not continue to condition. This fact further insures uniform results.

THE Dorr Woolen Co., Guild, N. H., installed a Riggs & Lombard Fleet Line stainless fulling mill. These machines are of heavy construction, and all inside parts that the cloth comes in contract with are made of stainless steel.

The installation consists of two No. 65 mills which can handle approximately 800 pounds of dry cloth at one time. These two fulling mills have replaced and are doing the work originally done by six old mills, and labor savings have been substantial.

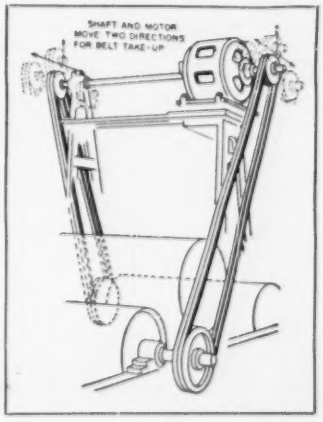
Case 16

V-Belts Assure Uniform Speed

THE BEATERS on one-process pickers at the Texas Textile Mill, Waco, Texas, were formerly driven by a motor mounted overhead, and although they were kept tight, the belts slipped on starting and frequently came off the pulleys. The quality of the cotton laps produced was not uniform because of uneven beater speeds, and production was hindered.

A Gates engineer suggested installing grooved sheaves for use with V-belts. The two beaters operate at different speeds; therefore different diameter sheaves were required. By choosing the right combination of sheaves it was possible to use the same length V-belts on both drives. To get the right tension in both strands, the motor was made movable both vertically and horizontally, as shown in the sketch.

The Gates Vulco Ropes are more positive than the old drive, and the beater cylinders stay up to speed. Quality of the cotton lap is uniform, production is not delayed, and there is no trouble with belts slipping off the pulleys.



Case 17

Proper Application of Correct Oil Solves Problems in Twister Room

A NEW ENGLAND mill had installed a large number of new automatic wick lubricated twister rings for nylon yarn. The assistance of Gulf lubrication sales engineers was solicited when excessive twister ring oil spread over the twisting frames, made the floors oily and hazardous, and the nylon yarn very oily.

The Gulf engineers diagnosed the difficulty as resulting from three causes:

1. Improper type lubricant
2. Improper application
3. Improper housekeeping

To correct the first of these, Gulf Merit Oil B was introduced. Recommendations were made to improve the application, and better cleaning practices were instituted. These changes corrected the situation entirely. The twister room is now a safer place in which to work, and the yarn is no longer spoiled by excessive oil.

Case 18

V-Belts on Card Drive Save $100 per Week

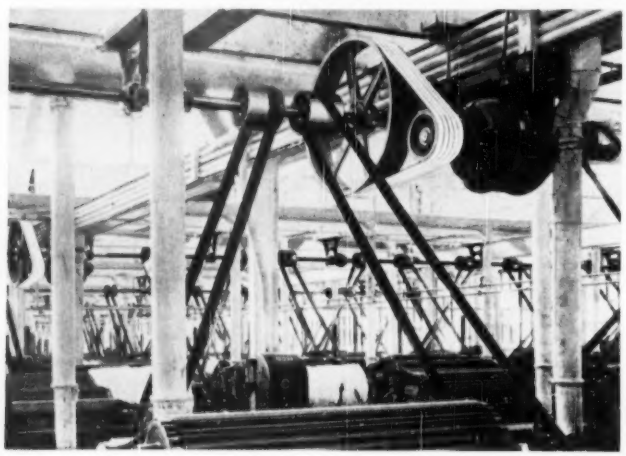
AT the Commander Mills, Inc., Sand Springs, Oklahoma, the cards are driven in groups of eighteen from overhead lineshafts.

Problem. Formerly, parts of the drive became worn and caused vibrations which pounded out the motor bearings. At least one drive had to be shut down for motor repairs each month. It was necessary to keep constant check on the level of lubricant for the drives formerly used. Maintenance and down time costs exceeded $100 per week, and the management decided to install a drive which could be operated more economically.

Solution. Resilient V-belts were installed by a Gates engineer to absorb vibration and shock, thereby protecting the motor bearings. The money formerly spent for lubricants and maintenance was saved as a direct result of installing the V-belts.

Savings. Although the changeover was made three years ago and the drives have operated on a 24-hour schedule since that time, the only maintenance has been an occasional tightening of the belts. The savings have amounted to approximately $100 per week.

Gates resilient V-belts were installed to absorb vibration on overhead lineshaft card drives, thereby saving on maintenance and lubricants.



Case 19

Photos Verify Damage Claims

FILING of claims against carriers because of damage to goods in transit can result in quicker, less red-taped replacements or payments if photographs of the damage can be inclosed.

For maximum usefulness such photos should show the damaged goods as first discovered and with as little disturbance from original condition as possible. A camera with flash attachment, kept handy to unloading docks, can prevent undue delay in handling of damaged shipments.

Two benefits can result from such pictures: (1) less cross-querying and (2) fewer damage cases because of the shipper's being able to determine what error in packing or handling caused the difficulty.

Case 20

Chemical Proportioning Aids Finishing Operations

TO open a valve and have flow from it a caustic solution of any desired strength without an operator manually pre-mixing it is desirable.

Several large southern bleaching plants have applied this principle to their continuous bleach range. The object was to use automatic controls to feed these bleaching chemicals continuously in a preset (adjustable) ratio to provide more accurate proportioning.

Fischer & Porter Company Flowrators (Rotameters) with automatic controlling accessories were selected for this job. The inherent straight seals of the Flowrator meter is a prime requisite for automatic proportioning, because no two meters with non-linear functions could accurately proportion at various ratios over the entire scales.

The diagramatic sketch on page 114 shows how these Flowrators were applied. The liquid level of the saturator is indicated on a remote chart and automatically controlled (C-1). Such control is accomplished by a continuous throttling type controller varying air pressure on an air motor valve in the water line feeding the saturator. This water flow rate is then indicated and transmitted pneumatically to a ratio controller (peroxide) and a ratio controller (silicate). This water flow rate constitutes one receiving side of these instruments designated C-2 and C-3.

Flowrator meters in the peroxide and silicate lines transmit their respective flow rates to these same instruments. These (C-2 and C-3) are dual receiving recording controlling instruments. The percentage of peroxide to water and silicate to water are set in these remote cases by turning a knob.

Now, as the water flow varies, as indicated by the level controller, the air operated valves in both the peroxide and silicate lines are automatically throttled to maintain the ratio set. This ratio is adjustable during processing; the change is instantaneous.

Results were as follows: (1) By separate feeding (not pre-mixing) it is an easy task to change the flow of peroxide or silicate to correct the bleach solution strength as required from titration. Obviously by feeding separately, each chemical can be varied as required. (2) Fluid handling efficiency is obtained by providing accurate and "operator free" proportioning. (3) These instruments are equipped with totalizers so that the exact quantity of chemicals used for a given batch of cloth can easily be determined—figure exact bleaching costs. (4)

Case 21

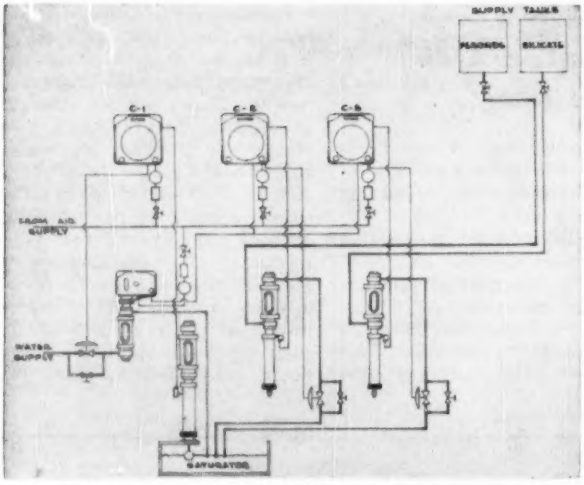
Push-Button Freight Elevator Saves Labor

IN ONE southern mill, a push-button system was installed on the main freight elevator. This installation enabled the mill to divert three elevator operators (one on each shift) to other work.

The push-button system is simple, and the cost of making the changeover was comparatively small, in view of the savings effected. The elevator is used for freight only, and when it is needed all that is necessary to call the elevator is to push a button. The elevator automatically comes to the floor on which the button was pressed.

The man handling the freight can operate the elevator from inside in the usual manner. The new installation has more than paid for itself during the short period of time it has been in operation. The accompanying photo shows an operative calling the elevator from another floor by simply pressing the call button.

Operative presses call button which automatically brings freight elevator to floor from which it is called.



Schematic diagram of chemical proportioning controls.

Peroxide is saved because it is not necessary to make up a solution over strength to compensate for the decomposition (oxygen given off) of the peroxide while it is standing to be used.

Case 22

Gas-Burning Infra-Red Generator Cures Resin Finishes

Radiant gas burners and recirculating air system increase production on nets and veilings approximately 300% in eastern dyeing and finishing plant.

THE Process Heating Co., Inc., designed and installed in an eastern plant a drying and curing system for resin finishes on nets and veilings.

The system includes gas infra-red generators as the source of radiant and convected heat, and it is complete with pre-mix combustion equipment, safety controls, and a large recirculating blower with ductwork for the movement of air. An exhaust blower was provided for the removal of volatiles.

The installation was made on a 22' wide x 25' long x 4½' high pin tenter frame housing. The housing was constructed of structural steel framework and 2½" insulating panels fabricated from Marinite.

An indicating temperature controller was incorporated into the system for maintaining uniform temperature throughout the dry box. Sufficient heat is supplied by the gas infra-red generators to keep the housing temperature, at full production, at 400°F. Gas consumption on this equipment averages about 1500 CFH (manufactured gas).

With this machine, the plant can now not only cure crease resistant and water repellent finishes, but also preset and cure nylon at 400°F.

Case 23

Composition Block Aids Maintenance

IN SOME cleaning applications, a time saver and an improvement over fine emery cloth and pumice stone is a small 2" x 1⅝" x ⅜" rubber and emery composition block.

When used to remove burrs from the teeth of an oscillating comb on a card, this little block will smooth them out with a little firm rubbing without affecting the teeth of the comb on either side of the rough point. With emery cloth or a pumice stone, it is difficult to remove rough places on the serrated edge of an oscillating comb without affecting the area on either side of the defect, and it is also a slow process, due to brittleness of the teeth.

The rubber and emery block's flexibility and resiliency allows it to fit the serrated edges of the teeth when pressure is applied to it, and is effective in removing deposits from the rough place.

This little rubber and emery block is very good on fly frames and spinning frames. It can be used to rub rough places from the steel rolls without having to remove the top rolls. Here again the flexibility of the rubber is a definite advantage.

In the weave room, it can be used to remove rough places from the reed without removing the lay cap, for as the rough place is rubbed, the rubber block will also smooth in between the dents. The softness of the rubber permits good cleaning without damaging the reed.

The small and useful tool can be

easily carried in a section man's pocket so that it is at hand when needed. The block can be used until it is worn down to a size too small to permit further use.

This small block of abrasive material will more than offset its cost by saving time and labor. It also reduces the need for emery cloth and pumice stones.

Its effectiveness and the smooth surface it leaves when used will please the most particular workman. Also it can be used in tight places very effectively without having the cost of extra labor to take down parts to do the job of cleaning and polishing.

Case 24

Revolving Top Clearer Stripper Saves Time

A REVOLVING top clearer stripper has been found useful in reducing the time required to strip clearer rolls. The accompanying photo shows the clearer stripper in action.

The stripper, or cleaning device, is set up on a box which has four casters on the bottom so that it is easy to move about in the mill. The unit is approximately four feet high, 2½' wide, and 1½' thick. The top is slanted at about a 30-degree angle, and a roller mounted on the box is covered with card stripper clothing. The stripper roll is operated manually by turning a crank at one end.

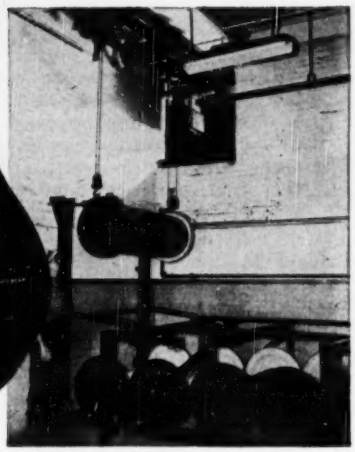
The top of the box has a sloping surface adjacent to the stripper roll to accommodate a revolving top clearer in the cleaning operation. The clearer roll is placed on the sloped surface on top of the box where it rests against the clothing on the stripper roll. Beneath the stripping roll is a board covered with card stripper clothing which serves to clean the stripper roll. Attached to the bottom board is a bar which knocks the clearer waste off the roller when the bottom clearer balls it up. The clearer board is arranged with the clothing set so that the crank has to be turned counterclockwise to perform the cleaning operation.

The roll cleaning device is passed from one operator to another as the rolls are cleaned throughout the mill. It is very satisfactory in cleaning and reduces the time required for cleaning. The waste box has to be emptied one time every two weeks after stripping 172 frames in that period of time.

According to reports from one mill, the stripper has helped improve employee morale in addition to speeding the stripping operation in spinning.

Revolving top clearer stripper in action.

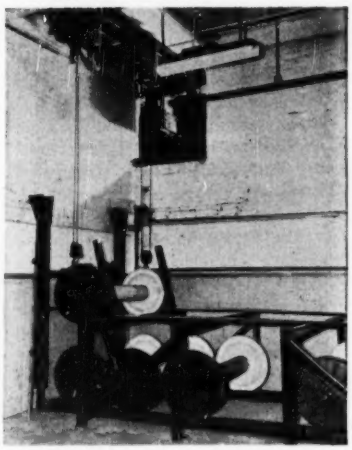
Another AMERICAN MONORAIL AUTOMATIC BEAM HANDLING INSTALLATION



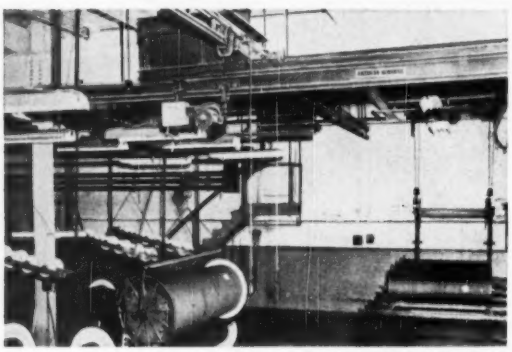
Automatic dispatched carrier stops over rack in slasher room, lowering beam which is guided into position for deposit on the upper tier of rack. Beam automatically rolls off hooks which continue down to lower tier to engage with an empty.

To eliminate hand pushing of heavy beams on dollies up and down ramps between various rooms appeared to be a very complicated and costly job. With hundreds of overhead handling installations to draw upon, American MonoRail engineers, by using a few simple innovations, installed this system. Now, full beams are automatically transferred from the warper room on one level, to the slasher room on a lower level, with return transfer of empty beams without attention after carrier is started. Savings effected will pay for the system in a suprisingly short time.

Why not put your handling problems in the hands of an American MonoRail engineer? Let him show you cost and time-saving advantages offered by American MonoRail Overhead Handling System. No obligation, of course.



Carrier unit automatically raises empty beam to upper limit whereupon the unit returns to the warper.



Hand pushed crane with electric hoist takes beams from rack to interlocking spur track over each slasher creel.

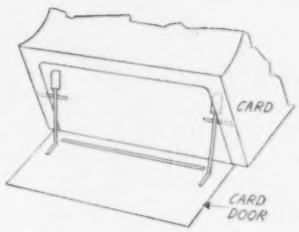
THE AMERICAN MONORAIL COMPANY

13108 ATHENS AVENUE CLEVELAND 7, OHIO

Case 25

Attachment Simplifies Card Cleaning

CONSOLIDATED Textile Co., Inc., Lynchburg, Va., reduced the time required to clean out fly from underneath the back side of cards by 50%. The saving was made possible by adding an attachment to the card doors, permitting them to be opened and closed by using the end of the vacuum hose. The attachment was made and installed by the mill mechanic.



Formerly the stripper had to take the doors down and replace them one at a time by hand. The job was laborious and took a lot of time, but the task has been made simple and easy by adding the attachment shown in accompanying sketch.

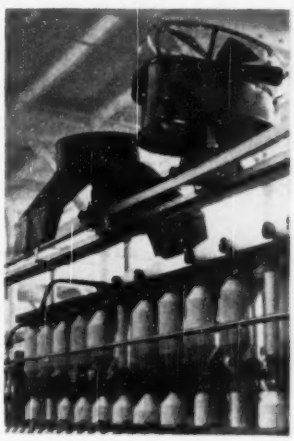
Case 26

Traveling Cleaner Reduces Overhead Cleaning Cost

ONE WAY to save money on textile housekeeping is to clean the ceiling and overhead objects such as lights, ducts, and piping, mechanically instead of periodically by hand. The new ParksTurbo Up-Draft cleaner does this, and installations in northern and southern mills show that the equipment will usually pay for itself within two years on labor saving alone.

Continuous cleaning with ParksTurbo Up-Draft cleaner prevents accumulation of lint overhead, since the high velocity volume of air "sweeps" over all surfaces every few minutes while the frames are in operation.

The Up-Draft cleaner supplements ParksTurbo Traveling cleaner installed on spinning frames, twisters, and winders. It travels on the same track and is connected to the frame cleaner. It is well adapted to independent installation and operation in areas not requiring frame cleaning.



ParksTurbo Up-Draft cleaner.

The up-draft current is not directed straight up, but at an angle. The cleaner hood rotates as it travels and produces a confined high velocity column of air, and the effect is that of a revolving hollow cone with the center of the fan as the apex of cone. When the column of air strikes any surface, it mushrooms to sweep that surface clean and spreads rapidly in all directions. The current of air strikes at a different angle on each circuit, so that all surfaces are kept free of lint and dust.

Case 27

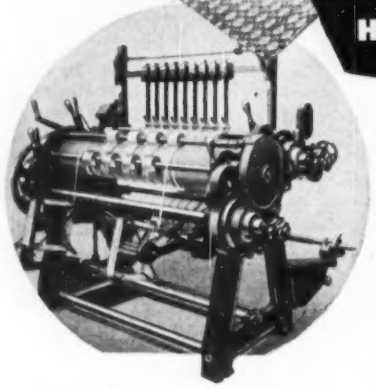
Elevator Controls Cut Maintenance

AN example of how vertical transportation studies by elevator experts improve factory safety and production can be seen in the plant of the Bibb Manufacturing Company at Columbus, Georgia.

A comprehensive survey by Otis engineers showed that although elevator cars were large enough and fast enough, they were out of service frequently due to burned-out motors and trouble with controls. Putting a stop-counter on one of the cars showed a brake application every seven seconds, which greatly slowed down the movement of material through the plant.

The elevators were not equipped with self-leveling devices. To overcome delays caused by the operator trying to level the cars manually and then open the doors, each car was provided with two attendants, one of whom operated the car control switch; the other operated the doors. The car switch operator would inch the car slowly above or below the landings to favor the direction of traffic in or out of the car. To do this, the safety interlocks on the doors were disconnected and the cars were operated with the doors open, thereby presenting a haz-

HOW TO SLIT A ROLL OF *Lace*



CAMACHINE S-27 Doupe Cutter slits and rewinds lace into clean, compact rolls of various widths and up to 14" diameter. This machine features flexible mounted self-guiding cutters which automatically follow the doupe through the full length of the web. Complete information on request.

THE RECENT REVIVAL of lace in fashions brought that question up again. It sent our engineers back twenty-five years to look over blue prints and specifications on the job-proved CAMACHINE S-27 lace slitter-rewinder. Cameron had the right answer.

We appreciate the confidence of textile men who call on Cameron for advice regarding a great variety of old and new slitting and roll-winding problems. Sometimes they call for entirely new engineering. Most often they call for a machine that Cameron has already built, for there are few slitting and roll-winding jobs in industry that have not been served successfully by CAMACHINES.

In almost every case Cameron will be able to promptly provide the right answers and the right equipment.

CAMERON MACHINE COMPANY • 61 Poplar Street, Brooklyn 2, N. Y.

Camachines *FOR FAST, TOP QUALITY ROLL PRODUCTION*

. . . the world over

AA-518

ard to personnel.

Installation of modern Otis equipment with automatic leveling, but using the existing machines and cars, has completely eliminated motor burn-outs and control failure. Materials are moved faster and in a more steady flow so that there are no production interruptions, and employee safety has been increased.

Case 28

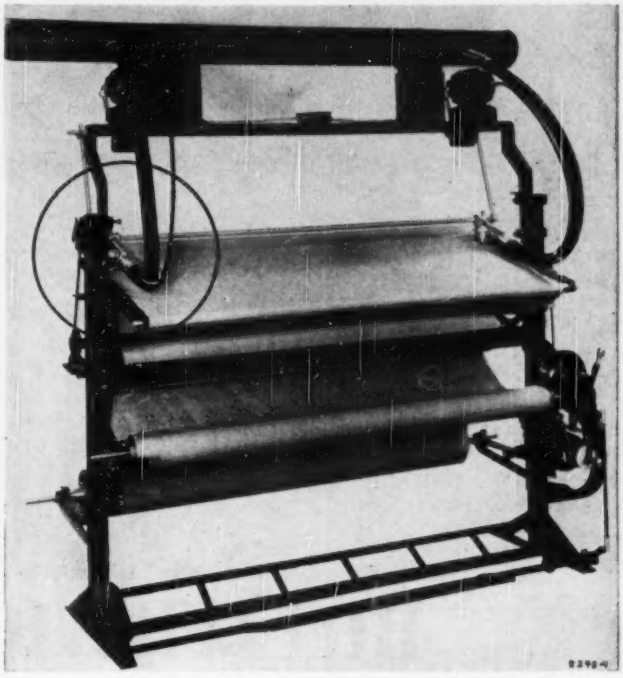
Individual Drives Show Good Return

AT Huntsville, Ala., the Huntsville Mfg. Co., formerly used 2400-volt motors pulling group drives to power processing machinery in various departments. Individual motor drives were installed on production machinery, and efficiency showed a definite improvement in addition to reducing the safety hazard of the old style group drive. The motors have paid for themselves in savings in maintenance alone, according to management at this mill.

Case 29

Brush Increases Glove Production

FORMERLY the final operation in making suede-fabric gloves was done by hand. The nap had to be raised. Lint and other foreign material on the gloves had to be removed. Engineers from the Fuller Brush Company cooperated in designing a power brush for a new machine to do the nap raising and cleaning. A brush was designed with a Fullergript metal-back strip open-coiled around a cylinder. One machine now does the work that formerly required six girls.



Trim-Master installed on Hermas GC-30 inspection machine.

Case 30

Winding, Inspection, Trimming Combined to Increase Production

A TEXTILE plant in Pennsylvania combined winding and examining cloth with selvage thread trimming by using a Trim-Master applied to the winding and examining frame.

Before installing the Trim-Master, this plant was trimming eighteen rolls of 72-yard, two-way-stretch material per operator per eight-hour day. With the new installation, production has increased to twenty-eight rolls per operator per eight-hour day. Representatives of the mill stated that they expect to attain a production rate of thirty-two rolls per operator per day in the near future.

The Trim-Master is distributed by Ginsberg Machine Co., Inc., 224 Fifth Ave., New York 1, N. Y., and can be applied to any standard inspection frame to combine winding, inspection, and trimming operations.

Butterworth presents the

RIPPLE FLO TENTER*

for all-purpose drying, shrinkage control, resin finishes, water repellents, permanent finishes

Here is Butterworth's remarkable new overfeed pin tenter complete with photoelectric eye, amazingly precise control of overfeed and a practical operating speed of 100 yards per minute.

Two years in development . . . thoroughly proven in mill operation, the Butterworth Ripple-Flo Tenter is ready to go to work for you on all-purpose drying, shrinkage control, resin finishes, water repellents, permanent finishes. Check these outstanding advantages:

(1) Overfeed accurately controlled from 0 to 25%

(2) Selvage tolerance of 1/16-inch (plus or minus) in relation to the pin line

(3) Extremely simple in operation

Overfeed is accomplished with overdriven feed rolls ahead of the tenter brushes. A dial indicator calibrated in per cent of overfeed makes accurate setting a simple matter. Bow is kept to a minimum because the entire width of the material is under positive control up to the brushes.

In the new Ripple-Flo Tenter, rail guiders are actuated by a photoelectric beam on the selvage line. Electronic circuits operate instantaneously to keep tenter pin line in register with the selvage. No mechanical fingers to curl or distort the cloth. This control operates as well on light materials as on heavy ones. Cloth color is of little or no consequence . . . and even material with an open selvage construction is handled successfully.

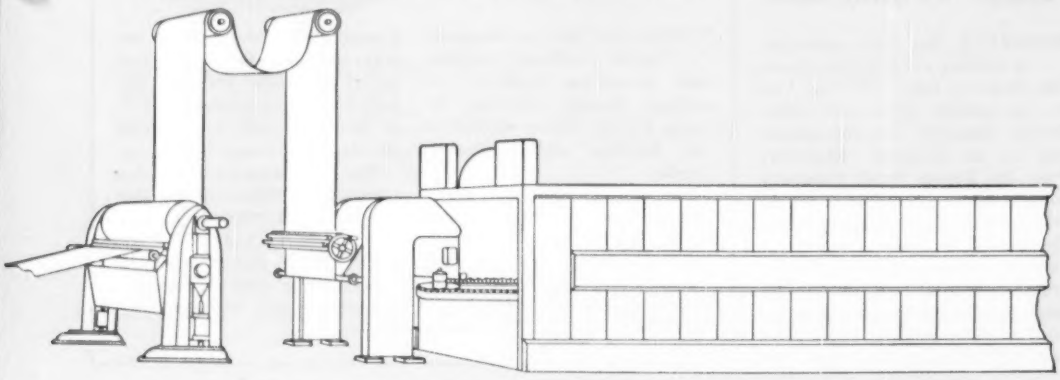
The Ripple-Flo Tenter has been used successfully on mixed fabrics, viscose and acetate rayon, worsteds and laces. Let us give you full details.

BUTTERWORTH

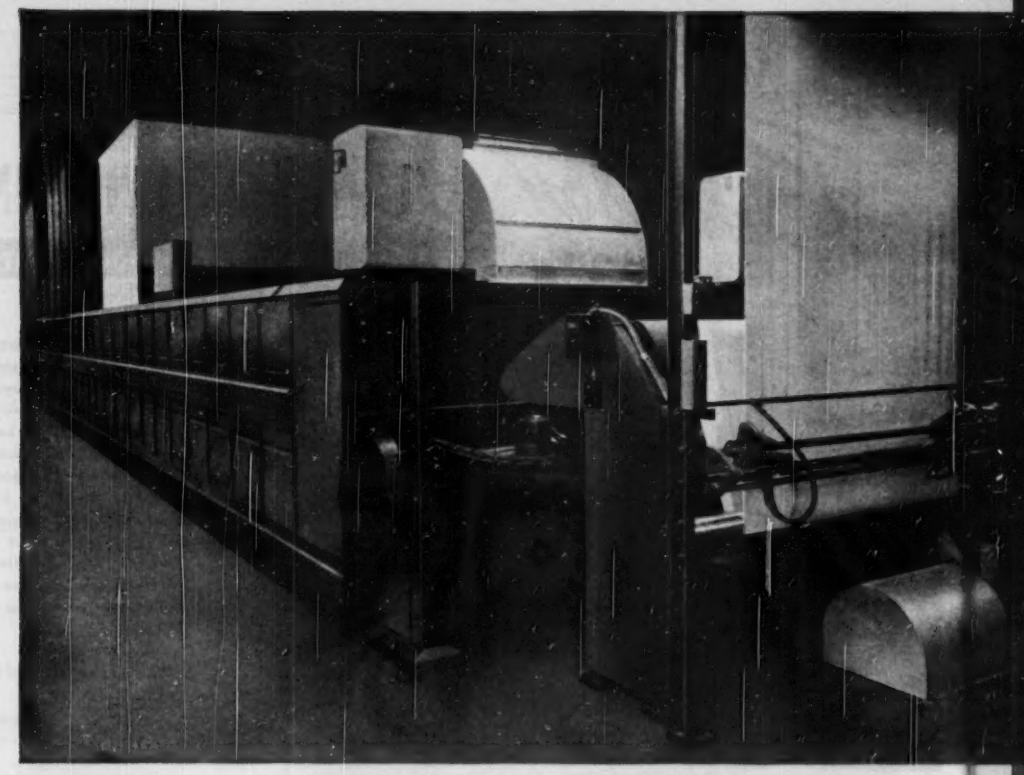
H. W. BUTTERWORTH & SONS COMPANY, Phila. 25, Pa. • Providence Div., Providence R. I. • 1211 Johnston Building, Charlotte, N. C. • In Canada: W. J. Westaway Co., Hamilton, Ont.

*Patent applied for; Registered trade name

See the Ripple-Flo Tenter
in operation at the
American Textile Machinery Exhibition
Atlantic City, May 8-12



Butterworth Ripple-Flo Tenter Range consists of a 2-roll Padder, sensitive automatic control



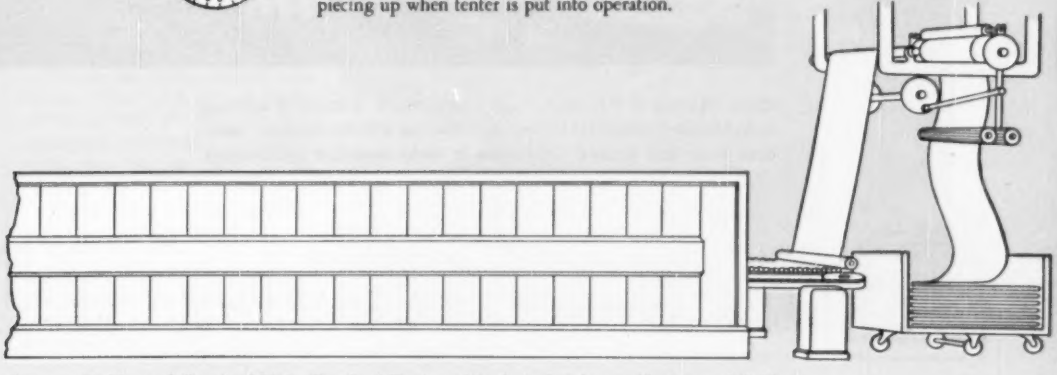
End view showing Overfeed Device in Ripple-Flo Tenter Range.

"MICRO-EYE" SIDE REGISTER CONTROL

Keeps selvage in proper position automatically. The signal from the scanning head is amplified and actuates a sequence of electronic circuits which, through a motor and lead screw, maintains selvage tolerance of 1/16-inch (plus or minus) in relation to the pin line.

CONTROLLED OVERFEED

Overdriven feed rolls ahead of tenter brushes are driven in conjunction with tenter drive by a patented selsyn system to give perfect coordination at all speeds. Roll overfeed is adjustable. Special brush construction picks up any selvage that comes off the pins at an irregular seam and puts it back on pin line. Facilitates piecing up when tenter is put into operation.



between Padder and Overfeed Unit, Overfeed Device with photoelectric eye, Tenter, and Folder.

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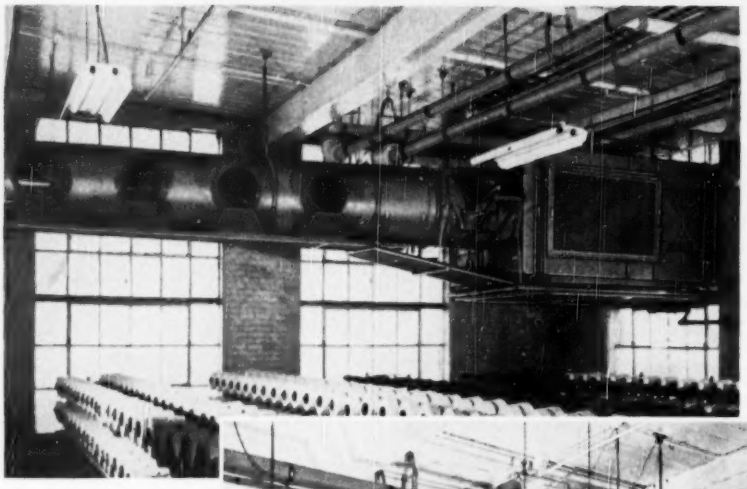
Bahnson AIR CONDITIONING

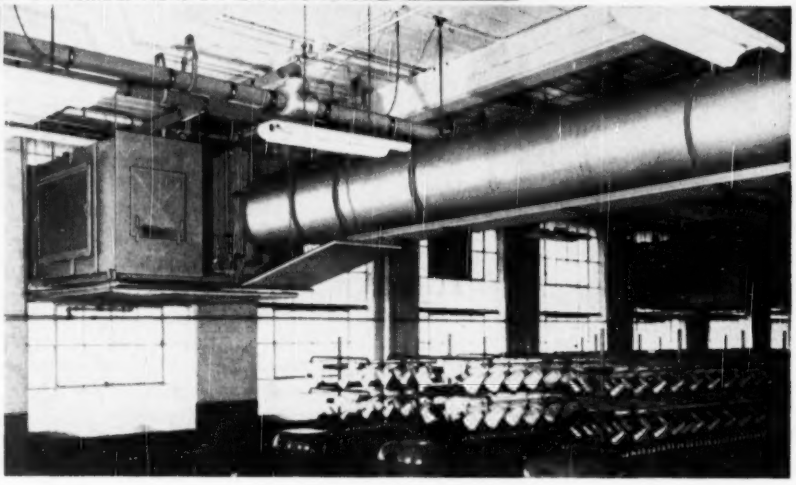
FOR YEAR 'ROUND TEMPERATURE and HUMIDITY CONTROL



The Bahnson Humiduct provides a basic unit system for evaporative cooling and controlled humidity to which refrigerative cooling, heating, air filtering in any combination can always be added. The Bahnson Humiduct unit is both flexible and economical, can be expanded or easily moved. No fixed, built-in installation or expensive apparatus housing required for air handling equipment.

↑ HUMIDUCT INSTALLATION TO PROVIDE EVAPORATIVE COOLING AND HUMIDITY CONTROL.

HUMIDUCT INSTALLATION PROVIDING HUMIDITY CONTROL WITH REFRIGERATIVE COOLING. →



Mills, "looking to the future," can approach the problem of eventual complete air-conditioning by degrees—starting with the Bahnson Humiduct basic unit as now functioning in many important installations.

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DEWITT CLARK
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LOS ANGELES 13, CAL.

Case 31

Dust Extractor in Opener Line Improves Yarn Quality

MANDEVILLE Mills has always had the problem of an excessive amount of dust in the opener room due to the fact that quite a bit of the stock opened is low grade cotton and strips. Oil spray was tried but was not satisfactory because the oil could not be applied to the stock evenly enough to forestall streaking the yarn in dyeing and bleaching.

Recently a Saco-Lowell dust extractor and filter was put in opener line between openers and pickers.

Results: opening room is much easier to keep clean as this installation reduces dust in air by about 25% and yarn is cleaner.

Case 32

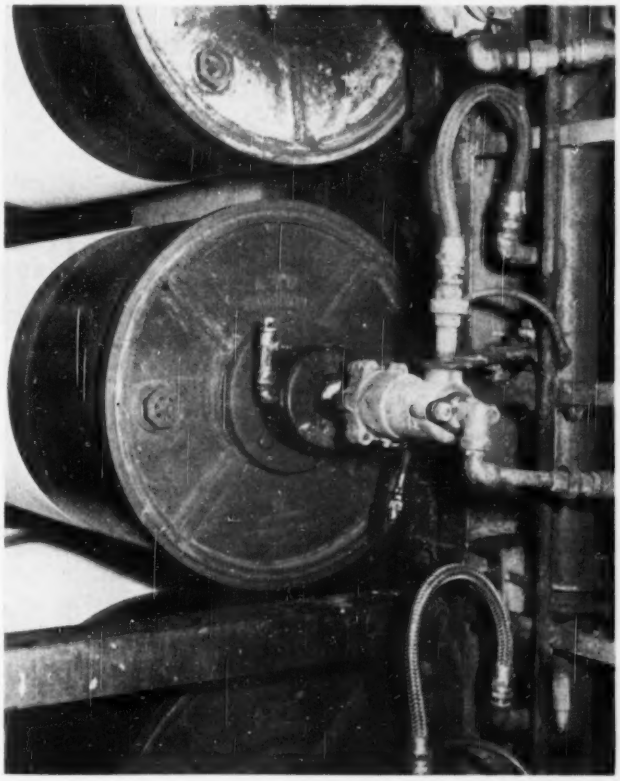
Special Grease Ends Bearing Failure in Finishing Plant

THE manager of a large textile plant reports that he has not had a single bearing failure since he started using Dow-Corning Silicone oils and greases over 30 months ago.

Typical of the lubrication problems that plague textile plant engineers is the maintenance of "steam - heated" bearings. It used to be necessary to lubricate bearings on drying cans and the main cylinder bearings of compressive shrinkers once every 8-hour shift. Since American Finishing Company started to use DC 44 Silicone grease, the lubrication schedule has been cut to once every 30 to 45 shifts. The lubrication of slashers presented a similar problem that has been solved by using DC 44.

On tenter frame chains and races that travel through ovens at 400° F., the formerly used oils carbonized so rapidly that the chains had to be cleaned periodically. That costly operation and the need for continuous lubrication have been eliminated by a weekly application of DC 710R Silicone fluid. Photo shows grease fittings on drying cans.

Photo courtesy, American Finishing Co.



F A M O U S

Caustic Comments

A famous author-humorist had finished an after-dinner speech. The next speaker, an attorney, rose, shoved his hands deep into his pockets, as was his habit, and laughingly remarked, "Doesn't it seem a little unusual that a professional humorist should have to try so hard to be funny?"

Drawled the humorist in a caustic manner, "And doesn't it seem a little unusual that a lawyer should have his hands in his *own* pockets?"

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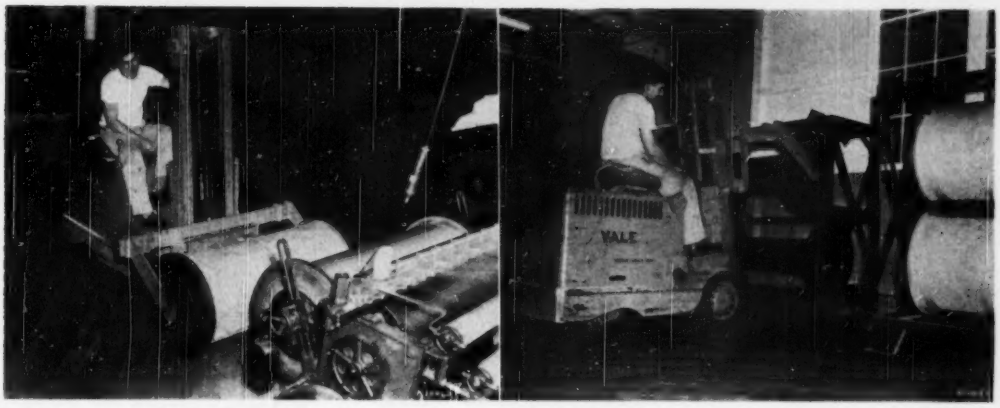


Left, special fork truck attachment in use to handle full beams. Right, removing empty beam from rack is easy task with special attachment.

Case 33

Unique Fork Truck Attachment Improves Beam Handling

A SPECIAL fork truck attachment is in use for lifting, transporting, and positioning beams at the Hoosac Mills in North Adams, Mass.

The device consists of a transverse iron member secured to the lifting mechanism of the high-lift fork truck. The member is slightly greater in length than the section beams being handled. Extending downward from each extremity of the transverse member, are two arms which are several inches longer than the radius of the beams. The arms slope downward at a 40° angle, and ends of the arms are notched to engage a shaft running through the center of the beams.

The specially-adapted truck is used at the Hoosac Mills to transport section beams from temporary storage to such processing equipment as warping machines, slashing machines, and weighing scales.

When employed as an ordinary fork truck, racks used for temporary storage are one of the many items which can be easily transported. The racks are constructed of angle iron, and each rack supports two sectional beams. The rack is equipped with skid legs to permit the forks to slip beneath the base of the rack and lift it for transportation. The mast of the Yale truck tilts backward to transport the rack in complete safety, thereby eliminating the danger of sliding off the forks when coming to sudden halts, going downgrade, or turning.

Special attachments, such as the one described, adapt the standard fork truck for handling many odd-shaped and awkward-sized loads, not only in processing operations, but also in receiving, shipping, maintenance, and waste handling.

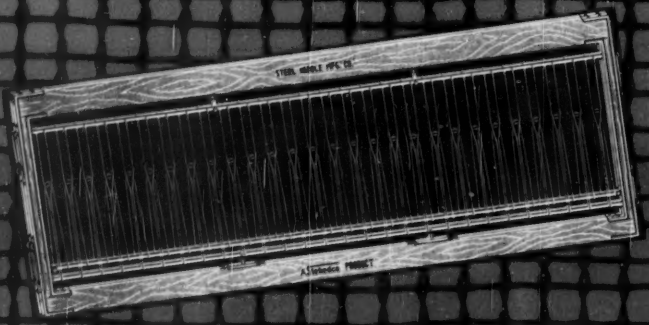
Case 34

Replaceable Brush Strips Eliminate Investment in Spare Brushes

One of three cost savings noted at backing company

AT THE Acme Backing Company in Brooklyn, New York, two sets of brushes were being carried for their starch dusting machine. One set wore out in 6 to 8 months, the brushes were removed for re-bristling, and the second set (costing between three and four hundred dollars) was inserted in the machine.

In 1941 six Fullergript brushes were installed. After seven years' service (the machine was idle one year during the war) half the trim was still left on the brushes. At least two more years of operation



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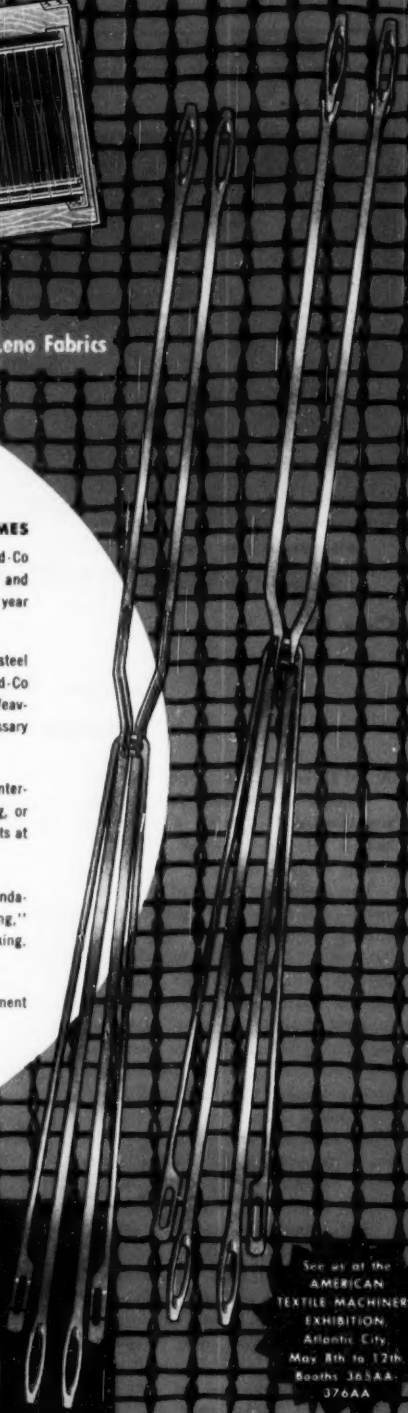

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are expected. When replacements are made, only the brush strips are removed. No time is wasted dismantling the machine. Replacement is so rapid that no "stand by" brushes are needed.

Another advantage of Fullergript brushes on starch dusting comes from improved control of product quality through even distribution of starch over the rubberized cloth surface.

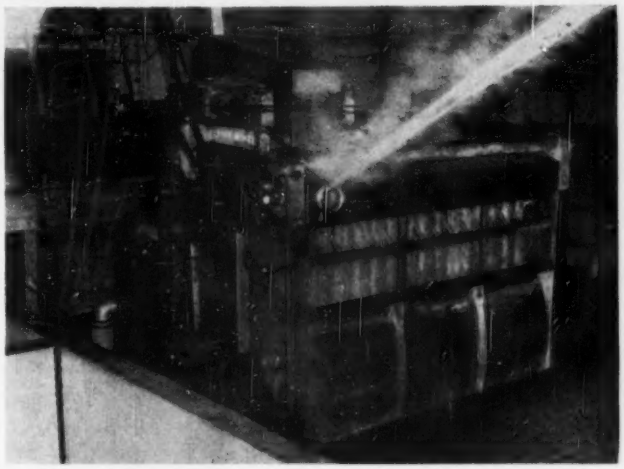
Case 35

Magnets Lessen Mill Fires

AT ONE TIME fires in the opening room at Woodside Mills, Greenville, South Carolina, were a common thing. At a cost of approximately $500, two non-electric permanent magnetic humps manufactured by the Eriez Manufacturing Company were placed in the opening room ahead of the vertical opener. Since that time fires have been virtually eliminated.

Prior to installing the magnetic separator the mill averaged at least one fire per month, and the estimated loss was $2,500.00 annually—on property alone. This does not take into consideration the down-time, and the employee's time used in combatting the fires. In less than three months' operation at Woodside the two magnetic humps paid for themselves completely.

Woodside's experience is typical of many other mills using this Factory Mutual approved magnetic equipment for preventing damage from tramp metal.



Tensitrol rope washer in operation. This finishing plant saved $21,763 in one year through use of the new model rope washer.

Case 36

New Rope Type Washer Reduces Costs

ONE finishing plant compared the cost of operating a Rodney Hunt Tensitrol rope washer with the equipment it replaced and found that $21,763 was saved in one year. The machine paid for itself in less than six months. Comparative costs were based on 160° F caustic wash service in bleaching range operating 24 hours per day, 300 days per year, at average speed of 250 ypm.

A comparative breakdown of costs is shown in accompanying table.

The Tensitrol rope washer, in principle, allows a variable traction of all the drive rolls on the fabric.

Two Old Washers		One Tensitrol Rope Washer	
Yearly amortization	$3,600	**Yearly** amortization	$1,800
Floor space - 225 sq. ft. @ $10.00 per sq. ft. /yr.	2,250	**Floor space** - 50 sq. ft. @ $10.00 per sq. ft./yr.	500
Water - 300 gal. /min. @ $.05 /100 CF	8,100	**Water** - 80 gal. /min. @ $.05 /100 CF	3,160
Steam to heat water to 160°F one washer with recovery of 66%, 2nd washer with cold water	15,715	**Steam** to heat water to 160°F @ $.80/1000 lb figuring recovery of 66% through heat exchanger	8,372
Power - 40 hp @ $.02 /hp hr.	5,760	**Power** - 20hp @ $.02/hp hr.	2,880
Repairs - replace bearings re-cover rubber rolls yrly.	2,240	**Repairs** - replace bearings re-cover rubber rolls yrly.	990
Total labor - 2 men (charge 1/3 of cost to caustic wash operation)	3,600	**Total labor** - 1 man (charge 1/3 of cost to caustic wash operation)	1,800
TOTAL YEARLY COST (plus operator wages)	$41,265	**TOTAL YEARLY COST** (plus operator wages)	$19,502

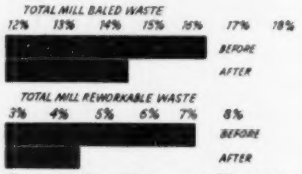
Yearly Saving with Tensitrol . . . . . $21,763.

Case 37

Savings Effected Through Waste Control Program

A SAVINGS of approximately $65,000.00 was made last year in one southern mill through waste reduction. The services of Southeastern Engineering Company, West Point, Georgia, were used in conjunction with the mill wide waste study. Three main points were covered in this study: The reduction of waste; the classifying, handling and reporting of waste; and the control of waste.

All production supervisors participated in a series of waste conferences conducted by Southeastern. A study was made of each type of waste to determine: potential reductions; methods of securing reduction; improved methods of handling and reporting; possibilities of increased mill revenues from sale of waste; and last, ways and means of controlling each type of waste.



Comparative data on mill waste before and after an effective waste control program was initiated.

It was the experience that a coordinated effort on a mill wide basis had to be made if the mill was to realize the greatest possible reduction of waste. This was true because poor quality work in one department usually showed up as waste in the following department or departments.

In order to control waste, it was necessary to designate some one person on the top management level to be responsible for checking the waste at definite intervals to see that it remained within established limits. In this way each level of supervision and, in turn, employees continued to remain interested in waste because of management's continued interest.

The savings indicated were based on the difference between the raw material value and the revenue received for waste sold. Annual savings exceed the cost of the service approximately twelve times, thereby indicating the value of the program.

Case 38

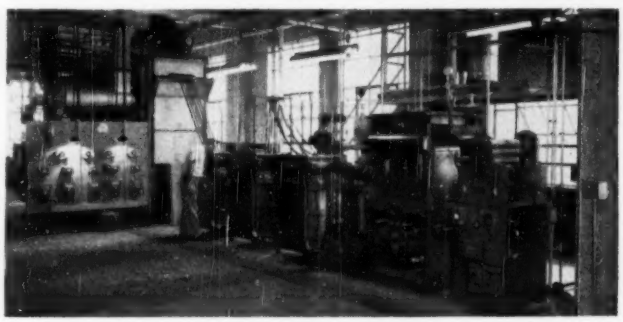
Range Decreases Narrow Fabrics Finishing Costs

PRODUCTION and finishing costs of narrow fabrics have been considerably reduced at the Schetty Brothers finishing plant, Carlstadt, New Jersey, with the installation of a new Butterworth continuous dyeing and finishing range. Theodore Schetty reports the new range is extremely flexible in application and operation. It is reported to be the first vat color range manufactured for narrow fabrics.

Increased Output. Six hundred yards of narrow fabrics can be processed in one minute. Fifteen strands of fabric can be run through the range at a rate of 40 yards per minute, sectionalized on rolls with spacers. Rolls have an 18-inch face. The range is only 60 feet long and is equipped with variable speed control for any part of the equipment. Dye box, washer boxes, dryer, and curer are all equipped with an automatic temperature control.

For direct colors, the Butterworth range at the Schetty Brothers plant can be operated as two separate sections with a total production of 1200 yards of narrow

One section of the new Butterworth two-stage continuous dyeing and finishing range for narrow fabrics in operation at the Schetty Brothers finishing plant, Carlstadt, N. J.



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● **Typical of these results** are the benefits which have resulted from the repainting of the plant of the Lily Mills Company of Shelby, N. C.

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By the use of proper *focal* and *eye-rest* colors on machinery the worker does his job better. Eye fatigue is reduced. The use of *morale-building* colors on walls and ceilings improves his mental attitude towards his task. *Safety* colors on operating controls and hazard areas reduce danger of accidents. Housekeeping problems are simplified because of the greater pride the worker takes in his more attractive surroundings.

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There's a color expert at each of our offices located in all principal cities. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have our COLOR DYNAMICS representative see you at your convenience. Or send this coupon.

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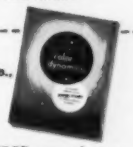

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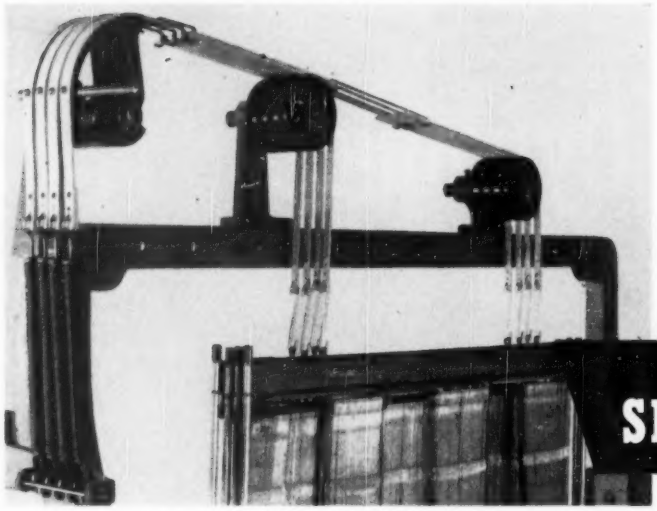

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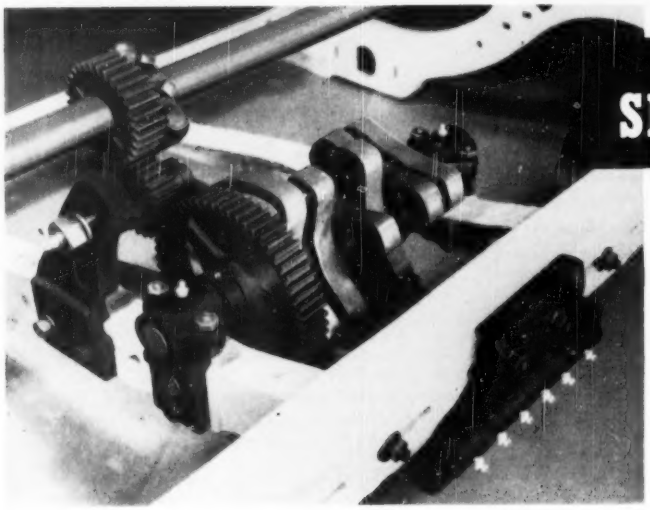

BTM AUXILIARY SHAFT MOTION

Offered as a complete assembly, the B T M Auxiliary Shaft Motion will give long, trouble-free service. Has all gear brackets, shafts, etc., ready for attachment. Auxiliary Shaft made of steel. Bearings for grease or oil lubrication. Treadles with or without bronze bushings. Idle gear stud hardened and ground for maximum life. Additional cross girts furnished if required. Treadle roll and pins furnished in any type from cast iron to anti-friction ball bearings.

COMPLETE ASSEMBLIES or INDIVIDUAL PARTS

We can furnish individual parts for either of the above assemblies. All B T M parts are standard and interchangeable. In ordering bearings, please specify whether for oil or grease lubrication. Your inquiries are always welcome.

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fabrics per minute. On vat and sulphur colors, the two stages are used as a single range.

Savings. The new narrow fabrics range is especially adapted for the continuous dyeing and finishing of hat bands, ribbons, tapes, and other similar fabrics. It now makes possible increased narrow fabric production with appreciable savings in time, labor, chemical and steam costs, over conventional methods of finishing narrow fabrics wherein skeins are used and each process a separate operation.

Case 39

Hydraulic Unit Aids Beater Drive

HYDRAULIC couplings are coming more and more into general industrial use. The Clark Thread Company has an interesting application of a twin disk unit mounted on a H & B beater in its O.N.T. plant at Clarkdale, Georgia. A 10 hp motor of 1200 rpm is used, and on the driven side, two flat belt pulleys are mounted on a short shaft fitted with suitable pillow block bearings, supported by brackets fixed to the floor.

Because beaters are subject to clogging, periodic motor overloads cause excessive belt slippage and necessitate overbelting. But with the hydraulic coupling between motor and beater, these troubles are completely eliminated. Loads that are hard to start are no problem with this type of installation.

This coupling was designed for a motor speed of 1800 rpm, and the mechanical slippage at full load will not exceed 6%, when operated at that speed. But since a 1200 rpm motor is used here, the slippage in the coupling may run as high as 11% or 12%. The efficiency is relatively high.

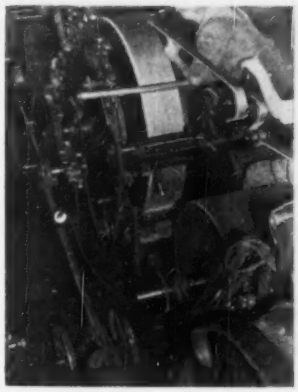
Case 40

Power Drive Speeds Card Re-Clothing

A POWER drive, made by the Toledo Pipe Threading Machine Co., Toledo, Ohio, reduces the time required for re-clothing cards by up to 75%. The drive is used in operating hand-tensioning devices for applying card clothing.

In one instance, two men recovered a 60" x 60" wool card cylinder in three hours, including the time required for make-ready and tacking both ends. Formerly, the job required five men five hours with hand cranking equipment. Clothing applied with the power drive is fitted tightly and evenly as a result of the constant tension exerted through the mechanism.

Most hand-tensioning devices for both wool and cotton cards can be operated with an adaptation of the new power drive.



Showing power drive connected to card undergoing re-clothing. Used in operating hand-tensioning devices for applying card clothing, the drive saves labor and time.

Case 41

Magnets and Ball Bearings Prevent Opener Room Fires

FIRES in the opener room at Mandeville Mills, Carrollton, Ga., have been practically eliminated by the installation of a magnet in the opener line and the installation of ball bearings on doffer beater shafts of opener hoppers. Before the installation of this equipment, the mill had an average of one fire per 80 operating hours.

A thorough investigation showed that fires were originating from three main sources:

1. Tramp metal fed in with raw stock and striking beaters or grid bars.
2. Chokes around doffer beaters and aprons.
3. Carelessness on part of operators—matches, careless cleaning, etc.

Troubles Eliminated. A magnetic pulley was installed on the end of the blending table where the stock is pulled from the table to the condenser. The magnet is doing an excellent job of removing tramp metal before it reaches other processing machinery.

Open type friction bearings on doffer beaters were found to cause hard chokes which would eventually pick up and absorb oil from bearings. Friction would eventually cause oily cotton to ignite and spread through hoppers. Since the installation of ball bearings no fires have been traced

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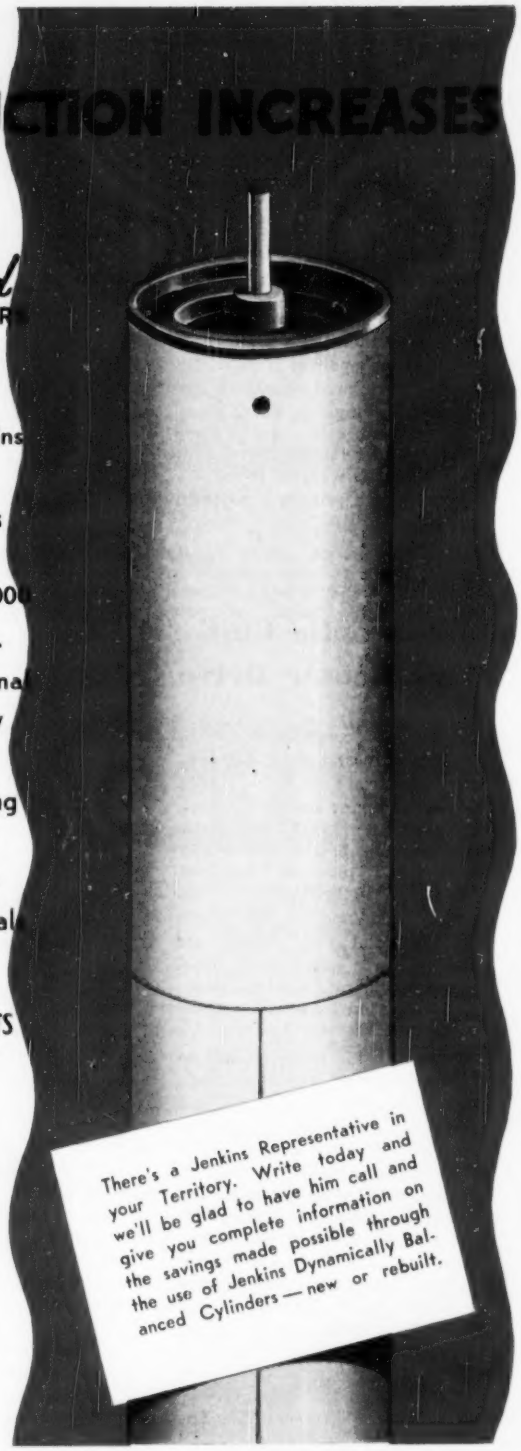

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To assure absolute uniformity, every part is die cut and formed. To assure perfect balance, every cylinder is pre-tested up to 3,000 RPM on Jenkins' exclusive Dynamic Balancer. It is this precision workmanship and dimensional balancing that has made Jenkins Dynamically Balanced Cylinders famous throughout the textile industry. By completely eliminating cylinder vibration . . . yarn flows freely and smoothly at all speeds, excessive wear on spindles, bolsters, gears, bearing, and journals is eliminated. You get the

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There's a Jenkins Representative in your Territory. Write today and we'll be glad to have him call and give you complete information on the savings made possible through the use of Jenkins Dynamically Balanced Cylinders — new or rebuilt.

JENKINS
METAL SHOPS
GASTONIA, N. C.

to chokes on doffer beater shafts.

An educational program was started to acquaint operators with the many careless acts that they unthinkingly do each day that could cause fires. Since this program was initiated over a 50% reduction in the number of fires has been noted, and the fires that do occur are less severe due to operators becoming more fire conscious and knowing what to do.

Case 42

Skein Reelers Effect Savings in Cotton and Wool Mills

Cotton Mill Application

ACCORDING to a report from Harriet Cotton Mills, Henderson, N. C., a group of 14 Fidelity reelers, of six ends each supplied from a magazine cone creel, is operated by one person.

On 20/1s cotton yarn, production is 700 lb per 8 hours. Under the old method of reeling, one operator's production on the same yarn was 350 lb in 8 hours.

Lower Cost, Better Quality. The actual cost of reeling is one-half that of the old method. The added expense of coning the yarn reduces this saving somewhat; however, coning the yarn produces a better skein, due to the fact that the yarn is slubbed. Under the old method the yarn was never slubbed.

The Fidelity reeler makes every skein the same weight and yardage, which is a distinct advantage over the old method where ends down in the spinning room produced bobbins of different yardages.

Wool Mill Application

MOHAWK Carpet Mills, Amsterdam, and Hudson Falls, N. Y., have installed Fidelity single end 9-skein reelers.

Benefits. This step in modernization at Mohawk has resulted in an increase per operator of approximately 50% in production. There is a great saving in floor space in that the new reelers take up only $\frac{2}{3}$ of the floor space used by the old reelers. One operator handles two of the new reelers and has a greater production than one operator handling one of the old style machines. Skeins are all of equal weight and length due to the automatic counter and motor brake on the reeler.

Labor Turnover. It has been found that the labor turnover at Mohawk has been considerably reduced because the operators find their jobs easier on the new machines.

Mohawk's new machines are equipped with automatic electric stop motions and yarn tension device designed for carpet yarns.

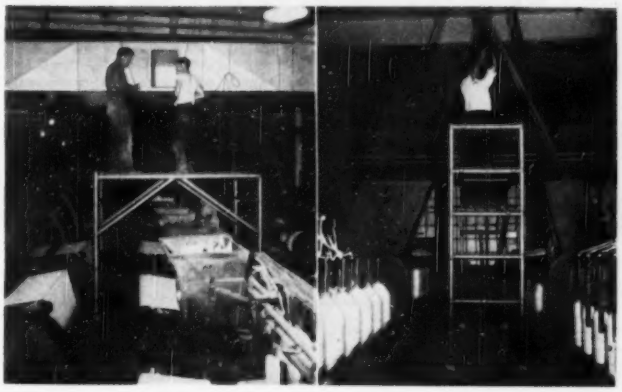
Case 43

Scaffolds Reduce Maintenance Costs

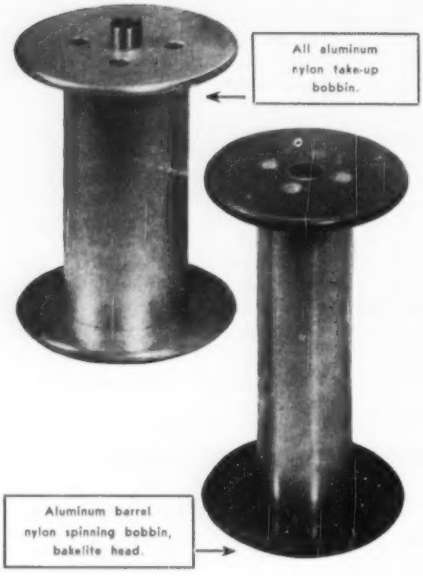
THE superintendent of W. A. Handley Manufacturing Co., Roanoke, Ala., has found that time and labor saved in maintenance have paid for three portable, adjustable, aluminum alloy scaffolds. Additional savings have been made in construction costs, painting, and in replacing lamps throughout the plant.

The lightweight scaffolds can be handled by one man, and they save floor maintenance due to their light load. The equipment can be erected quickly and can be easily moved to the desired posi-

Two applications of Up-Right scaffolds in saving time and labor in mill maintenance.



For maximum production in NYLON PROCESSING-- WITHOUT BREAKDOWNS---



LESTERSHIRE
UNIT CONSTRUCTION
BOBBINS

give efficient, trouble-free processing of nylon or other modern high-tenacity yarns, at today's high production speeds.

Whether empty or filled with yarn, Lestershire Unit Construction Bobbins retain true concentricity because:

- ***They're made from the finest stable materials*** — **such as aluminum magnesium, or bakelite and their combinations, that withstand the crushing effect of nylon or other yarns, and are impervious to steam or moisture conditions.**
- ***All parts are machined*** **to closest tolerances, and finished satin smooth to prevent yarn abrasion.**
- ***Heads are interchangeable*** **right at the mill with no loss of concentricity.**

It costs less to use efficient LESTERSHIRE Unit Construction Bobbins than to replace worn spindles.

•

We will be glad to submit samples of the type bobbins you use, made to Lestershire high standards of design and construction.

LESTERSHIRE SPOOL & MFG. CO.
JOHNSON CITY, NEW YORK

Branch Offices and Technical Service

R. B. Dorman—1000 Peachtree St., Atlanta, Ga.

Joseph H. Windle, Jr.—231 So. Main Street, Providence 3, R. I.

Odell Mill Supply Co., Greensboro, N. C.

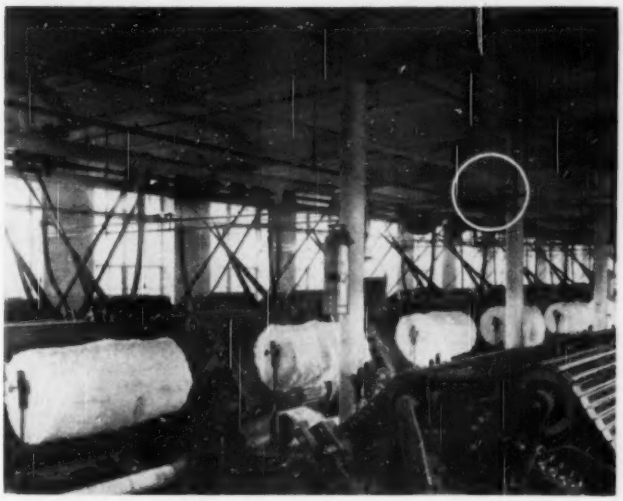
Greenville Textile Supply Co., Greenville, S. C.

W. S. Taylor, Inc., 52 Vanderbilt Ave., New York 17, N. Y.

tion where the job is to be done.

One advantage claimed for the lightweight scaffolds is that production machinery can be kept in operation, and mill operatives are not hindered from performing their duties while the maintenance work is being done. The forementioned scaffolds are made in various sizes and shapes by the Up-Right Scaffolds Division of Up-Right, Inc.

Other mills which report savings by using this equipment are Bibb Manufacturing Company, Macon, Georgia; Laurel Mills, Rutherfordton, N. C.; Slater Manufacturing Company, Slater, S. C.; and Martha Mills, Silvertown, Georgia.



Turbomatic humidifier installation in card room improved room humidity and reduced maintenance and cleaning in this mill.

Case 44

New Humidifier Cuts Maintenance

A GEORGIA cotton mill, operating several plants, has solved the problem of what to do about old obsolete humidifiers by installing the Parks Turbomatic humidifier. Results have shown a gratifying improvement in room humidity and a worthwhile saving in maintenance and cleaning.

The self-cleaning feature of the Turbomatic humidifier prevents stoppages from dirt or foreign particles which may come from air and water so that continuous performance at high efficiency is realized.

This particular plant uses the Parks Turbomatic humidifier principally in picker and card rooms. Also, it is used to supplement central station systems in twisting and weaving rooms. In card rooms, the Turbomatic humidifier has the advantage of a very fine spray which can be directed in alleys and between belts and with no danger of damaging card clothing.

For use with duct systems, it is particularly suitable in that the humidifier can be placed directly in front of the duct outlets, thereby mixing completely with the conditioned air supplied to the room.

This mill finds that with the Parks Turbomatic humidifier there are no more overflows due to plugged drain pipes and lint does not interfere with humidifier performance.

Servicing Turbomatics averages once in 9 to 12 months.

Case 45

Grease Extends Lubrication Interval From Six Weeks to Six Months

AT Naumkeag Steam Cotton Company in Salem, Massachusetts, where famous Pequot sheeting, sheets, and pillow cases are made, the opening room is equipped with the newest machinery available.

Gulf Precision Grease No. 2 was introduced and an immediate study made to determine whether the greasing interval could be extended. In this investigation frequent inspections were made to determine the amount and condition of the grease in the bearings.

The study showed that the grease did not leak out and provided lubrication over long periods of time without change. The present greasing interval on these bearings has been extended to six months. The time saved by the operator is made available for other work, and the equipment is cleaner and there is no waste grease.

There's a SMITH–DRUM System to Meet Every Operating Problem . . .

for DYEING EXTRACTING DRYING Yarn in Package Form

Faster, Better, at Lower Cost

Your requirements for package dyeing, extracting and drying are determined by your location, the capacity you wish to establish, the type of colors (direct, vats, developed, naphthol, acid, etc.) you are going to use, the cost of water, steam and electric power.

That is why you should consult Smith-Drum regarding your plans. Qualified engineers, each with a background of textile training and practical experience, will show you what advantages you can obtain from using the proper selection of Smith-Drum package dyeing, extracting and drying machines to meet your own requirements.

The proper selection of "The Best Machine" of each type will insure your getting the best results, in the shortest time at the lowest cost.

Write for Catalog No. PBD-801 and have our engineer call.

TWO INTEGRATED SYSTEMS

① Package Dyeing Machine (illustrated)
Mechanical Extracting Machine
Cabinet Type Drying Machine

★

② Package Dyeing Machine (illustrated)
Pressure Extracting Machine
Port Type Drying Machine

★

SMITH, DRUM & COMPANY

ALLEGHENY AVENUE AT 5th STREET, PHILADELPHIA 33, PA.

Case 46

Automatic Oilers Reduce Lubrication Costs 75%

ONE MILL has effected savings in man power, oil, and damaged material costs by installing Trico visible-supply oilers. One of the mill's superintendents reports that oil consumption on cards has been reduced considerably. In fact, a supply of oil that formerly lasted one week, now lasts for over three months.

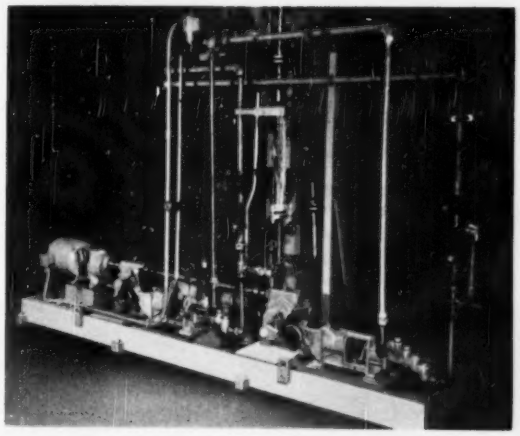
Another important saving was made in terms of man-hours of labor used in lubricating spinning frames and other machines. Before the automatic oilers were installed, considerable time was required for daily hand oiling. Trico oilers now supply complete lubrication, releasing man power for other more productive duties.

Machine down time is much less in that one filling of the oil reservoir lasts months, whereas machines were sometimes stopped for manual lubrication. According to maintenance records of machines equipped with Trico automatic oilers, bearing failures due to faulty lubrication are almost non-existent.

Case 47

Chemical Ratio Maintained in Bleachery Operations

THE BLEACHERY at Springs Cotton Mills, Lancaster, S. C., was faced with the problem of maintaining a constant ratio of caustic to silicate to peroxide in a peroxide saturator in order to compensate for different types and weights of cloth passing through the saturator. In cooperation with the plant management, Milton Roy Company of Philadelphia, manufacturer of chemical pumps and chemical feed systems, developed a 3-cylinder "gang" pump.



This unit comprises a standard type Duplex pump and a standard Simplex pump on a common base, driven by a Speedranger motor unit and individual gear reducers as shown. This drive varies the number of strokes of all three plungers from a maximum of 56 to a minimum of 7 strokes per minute, thus regulating the total discharge of the pump over an 8 to 1 range.

Additional control of discharge from each of the three plungers is provided by micro adjustment of stroke length while the system is in operation. This individual control permits varying the ratio of each liquid stream from zero to maximum as may be desired without interrupting production.

Such systems may be manually controlled, as in this case, or may be fully automatic, the concentration in the caustic (or acid) bath being maintained by continuous titration. Similar systems, to handle as many as 10 liquid streams, have recently been put into operation in paper mills, food processing plants and others throughout the country. The system has been helpful at Springs.

Case 48

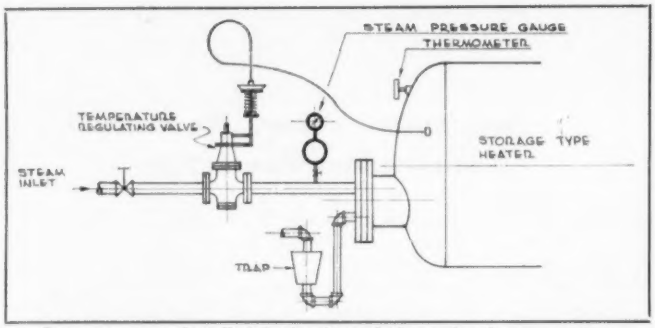
Pressure Gauge Aids Regulator

A VALUABLE addition to a steam temperature regulator installation is a pressure gauge installed in back of the regulating valve.

Almost all temperature regulator installations have a thermometer installed in the heated medium line or tank so that the regulator may be set and its accuracy maintained. By observing the thermometer and the pressure gauge, it is possible to see if the regulating valve is shutting tight during the periods when the temperature is correct.

It is quite important that the regulating valve shut tightly during extended periods of no flow through the heater, otherwise the small amount of steam that leaks through may build the temperature up to a dangerous point.

The pressure gauge will also serve to show if the regulating valve is opening properly when the demand goes up and the temperature begins to fall. If the temperature cannot be maintained and the pressure gauge shows adequate pressure after the regulator, then it is probable that the heating surface in the heater is inadequate or the coil is partly flooded due to the condensate removal not being fast enough.



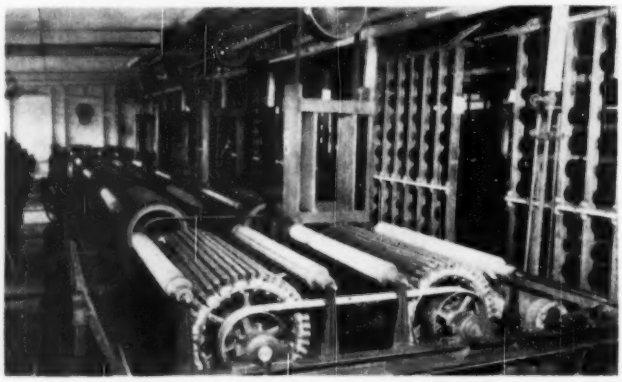
Pressure gauge installed back of regulating valve in temperature regulator installation.

Case 49

Dense Brush Face Reduces Thread Breakage

ONE New England mill reports that they were able to reduce thread breakage by introducing Fullergript brush strips on their thread dressing machines when their other brushes wore down. Because these brushes are formed by loop-anchoring the brush material in metal channels, a more dense brush face can be produced.

Battery of thread dressers using Fuller Steelgript brushes.



The dense brush face gives threads firmer support, and thus reduces breakage. At the same time, the thread glaze is improved. The narrow brush strips are mounted directly on the spiders without slats, so there is far greater opportunity for heated air to pass between brushes and reach the threads.

This mill has experienced less trouble in replacing brushes since they started using Fullergript brush strips on their thread dressing machines.

Have Your Piano Tuned Regularly

Spinet . . . upright . . . or baby grand,
performance depends on regular tuning.

Have your Full-Fashioned Knitting Machines checked—regularly—to keep them at highest efficiency . . . Follow a regular program for reneedling and your needle bars are always in shape for better knitting . . . Follow a regular program for reconditioning and your plant is always at peak performance. We will be glad to discuss this matter of regularity as it applies to your mill operation.

TEXTILE MACHINE WORKS • READING, PA.

The "READING"
Full-Fashioned Knitting Machine

Flexibility when it's needed

At every point from beard to shank, Textile Spring-Beard Needles have the proper degree of flexibility so vitally necessary in the knitting of fine fabrics. A special steel formula is responsible for achieving proper tempering of the needles. The resilient qualities are imparted to Textile Needles accurately and scientifically.

Textile's quality controls — automatic and electronic — assure you of getting only the finest needles which have passed every rigid inspection. These precision controls add up to finer quality knitting when you specify and use Textile Spring-Beard Needles.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile

SPRING-BEARD NEEDLES

For Full Fashioned and Warp Knitting

Modern Production Methods (Knitting)

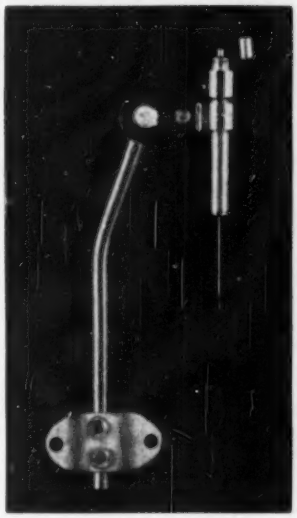
Case 1

Needle-Protector Cuts Knitting Costs

SEVERAL knitting mills are using electric needle-protectors for rib knitting machines to save time in that the device does away with the necessity of re-setting the pointer by hand. Damaged needles are expensive to replace, and the electric needle-protector reduces the number of replacements necessary, in addition to saving the time required to repair the damage.

By continually fingering the pointer on many needle protectors, the knitter usually pushes the setting out of place, thereby robbing the instrument of its purpose. The electric needle-protector is retractible, and the operator simply pushes the top plunger down to automatically snap the pointer back to its original position. A visible plunger shows the operator at a glance which needle-protector is knocked-off. This feature reduces the amount of time consumed in searching for the cause of stoppage.

Other benefits from using the retractible electric needle-protectors, made by Stop-Motion Devices Corp., are less damaged goods, fewer seconds, less down time, more production, and reduced maintenance costs. The device can be installed on any knitting machine.



Retractible needle-protector.

Case 2

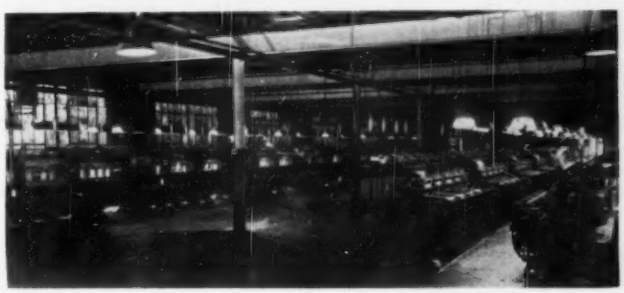
New 60 Gauge Full-Fashioned Machines Achieve High Production Record

THE picture shows 32 Reiner 60 gauge Twin Knitters, operating 24 hours a day, 6 days per week, at the Sheer Delight Hosiery Mill, Lodi, New Jersey.

The plant is not air-conditioned. Observed production over a period of 10 weeks, knitting a 60 gauge 15 denier stocking with approximately 2500 courses, 182 narrowings, and two picots was:

8 machines (32 sections) with one operator in 8 hours produce from 13.4 dozen to 14.6 dozen. The machines run from 74 to 76 courses per minute from start to finish; with the exception of a slow-down of one course before each narrowing, but with no reduction of speed in the splicing and foot.

The new machines have enabled this mill to achieve an excellent production record, especially on fine gauge hosiery, and with no air conditioning.



Case 3

Automatic Soap Circulation System Aids Woolen Knit Goods Finishing

System permits better distribution of detergents on piece goods, saves labor, soap, production time, and improves plant appearance.

MORE THAN 1400 gallons of concentrated soap solution are stored in centrally located reservoirs of Gloversville Knitting Company's finishing department. The solution is ready for instant use. An integrated distribution system permits soap delivery to any fulling mill at the flow rate and quantity demanded.

In tubs, the concentrate is diluted to specification depending on the type of goods in process. The soap is in an optimum condition for superior dispersion throughout the piece goods since the detergent ingredients have been solubilized, homogenized, and strained prior to distribution.

Components of the system are interconnected by over 200 feet of piping. Batch mixing at the fulling mills, along with its many undesirable features such as buckets, dippers, spillage, and lost motion is completely eliminated by the pumping arrangement.

Metered Flow. Each fulling mill feed line is equipped with a Neptune meter whose dial is calibrated from 0 to 200 gallons per minute rate of flow. A counter registers total flow in gpm. Viking pump Model KK 212 maintains a maximum 35 gpm flow, which may be further reduced at the fulling mill by manipulating a Walworth gate valve. The pump is powered by a 3 hp Crocker Wheeler continuous duty motor operating at 220 volts, 8.6 amps, and 1130 rpm at full load.

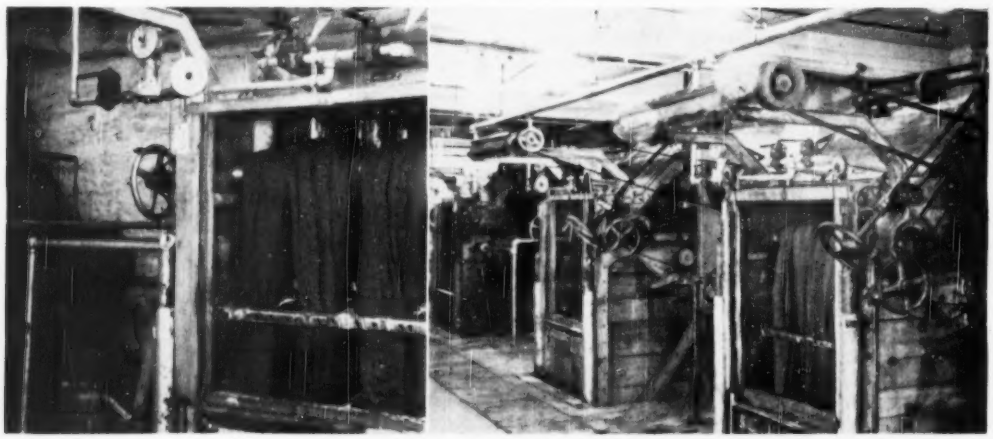
Soap solutions are stored in two welded iron sheet tanks measuring 48" x 48" x 60" each. The soap mix is actually prepared in a four foot diameter tank, and then pumped into one of the reservoirs. Line flushings of soap and water are accumulated in the other reservoir. This subsequently goes into the next batch of soap.

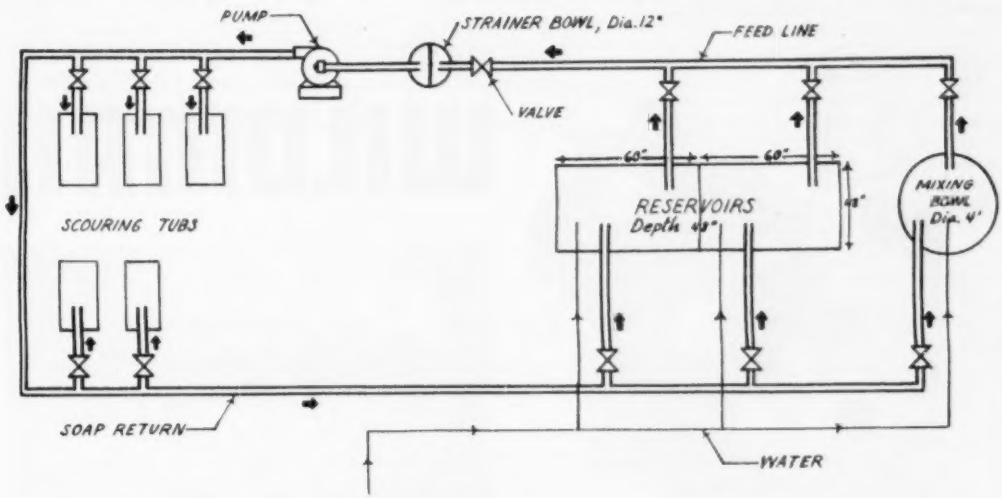
All of the tanks are fitted with feed lines connected to the main soap circulation pipe and also hot water lines for batch make-up. Before soap is distributed, the solution passes through a large capacity 12" diameter strainer where undissolved particles and contaminants are screened out. The top of this strainer is removable to allow access for cleaning purposes. Riggs and Lombard, Inc., engineered the system and fabricated most of the parts.

Maintenance. Occasionally lines are flushed with water in order to remove precipitates from the system. Reservoirs are periodically drained and flushed with hot water. Ordinary precautions as for conventional plumbing are exercised over valves, fittings, and other connections.

Very little repair work is an-

Left, each fulling mill is connected to the soap circulation system by shut-off valves and flow meter registering gallons per minute rate and total delivery of the solution. Right, soap is distributed to fulling mills in line. Volume of soap delivered to each fulling mill is independently controlled and depends upon soaping specifications of the order.





Diagramatic layout of soap circulation system for wool piece goods finishing at Gloversville Knitting Co.

ticipated since the soapy fluid is non-corrosive, stable, and therefore not likely to damage the lines. Solution is drained from overhead piping during long stand-by periods, shut downs, and weekends. This procedure prevents solidification, although such a situation is quickly remedied by flushing.

Operation. Every order necessitates varying quantities of soap solution delivered to the fulling mill, depending on the soaping formula specified for the type piece goods. Before goods are loaded, sufficient soap and water of the proper temperature are run into the fulling mill to bring the bath level up as required.

There isn't any chance of spilling soap solutions over floor areas or wasting detergents as is common when mixing small batches.

Case 4

Electrical Device Prevents Rust Formation in Chemical and Water Supply Tanks

THERE IS much publicity about the national debt, loss of life, and destruction of property caused by highway accidents, loss of property caused by fire, and other losses too numerous to mention. When one sees a compiled list of any one category showing nationwide figures, the losses are astounding.

What the nation's losses in industry are due to rust alone would probably be amazing. There is no doubt about it, metal water tanks will rust; like a cancer, rust continues little by little, day by day, unless some means of prevention is used.

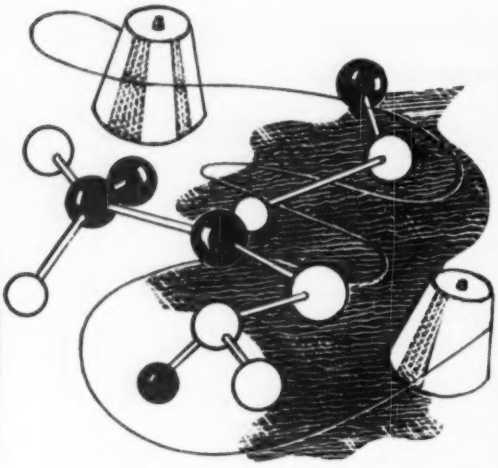
The oldest known method of combatting rust is scraping the interior and repainting it with rust resisting paint at given intervals. This involves considerable cost for labor and paint, and it does not prevent rust from forming.

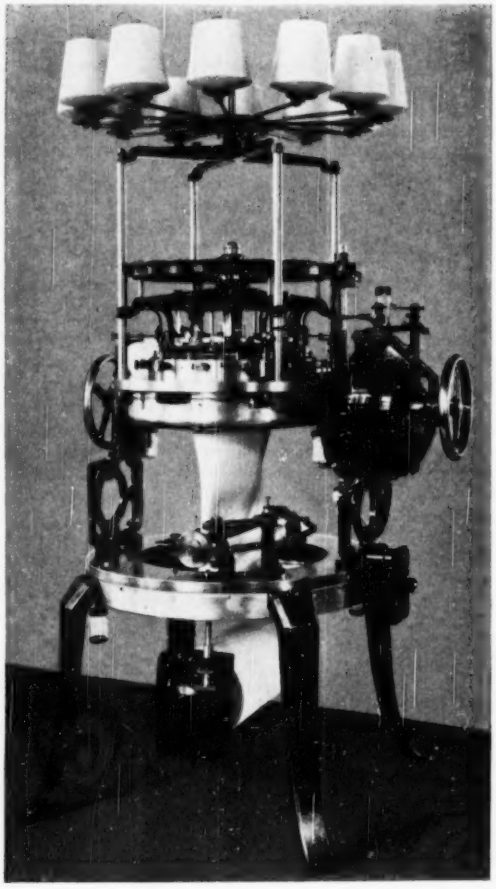
An electrically operated device known as Rusta Restor, produced by Johnson and Jenning Co., 864 Addison Ave., Cleveland, Ohio, is being used to prevent rust in water supply tanks at a Georgia knitting mill. This device will not remove rust, but if a tank is scraped before installing it the device will prevent rust from forming.

MODERN KNITTING

means

WILDMAN





As you get farther into this very new year so full of modern symbols and impacts, you will find these reflected in your own business—in greater modern demands on the knitting skill and capacities of your mill. More and more you will feel the need of this new WILDMAN machine . . . It can do your simplest as well as your toughest knitting job with equal ease . . . Its workmanship is perfect and the splendid uniformity of its product gives exceptional accuracy in garment sizes and provides practically unlimited style opportunities . . . There are also many operational features and advantages that we are eager to tell you about. When may we?

The NEW
WILDMAN
KNITTING MACHINE

WILDMAN MFG. CO., NORRISTOWN, PA.

Case 5

Hosiery Stands Improve Efficieney in Inspection Department

Stands provide storage space, reduce paper work, unnecessary handling, and picks and pulls resulting from tying hosiery in bundles.

THE COST of handling hosiery in the grey inspecting department at Wisteria Hosiery Company has been reduced by approximately 40% due to new design and rearrangement of auxiliary equipment used in connection with the Ammon inspection system.

Method Formerly Used. In common practice with the Ammon system, the hosiery to be inspected is delivered to inspectors in magazine trays, which is one of the simplest and most protective devices ever used for holding stockings in process.

After the stockings are inspected, they are made up in wraps or bags in multiples of either three or four dozens for the purpose of pre-boarding and dyeing. The sub-quality stockings such as menders, seconds, reseams, knitter charges, and any surplus first quality stockings above those needed to complete a wrap, are given to a checker who places them in a classification cabinet for further processing.

Each style has at least five classifications, and each classification has five sizes, making it necessary for the checker to fill in at least five tickets for each tray inspected. In eight hours, a checker is often required to fill in from 500 to 1000 tickets. The tickets must then be attached to the stockings for identification.

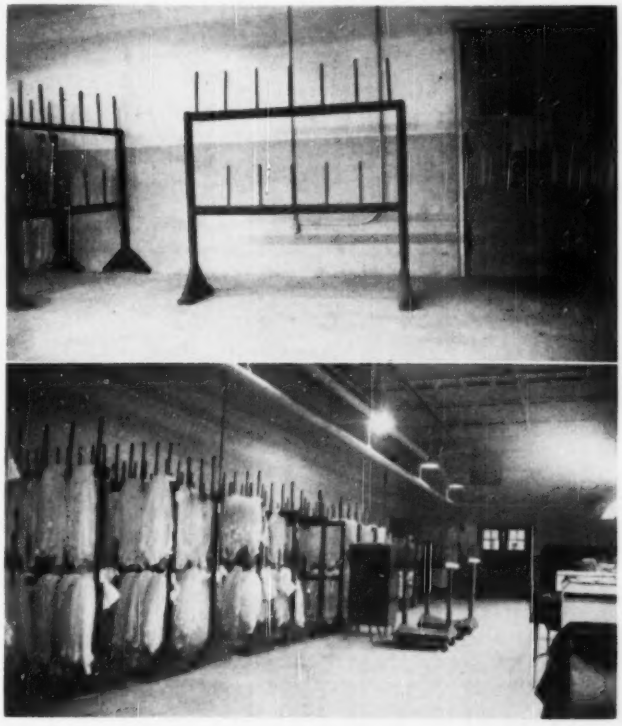
The sub-quality stockings are stored until sufficient quantities of goods have accumulated to be made into a lot for the next process. The first quality odd stockings are used to fill in any inspector's wrap to complete the required number of dozens. This was the system in use at Wisteria before new hosiery stands were designed and built.

The Problem. A careful survey of equipment used for storage, and an analysis of method of handling stockings showed that in order to reduce labor cost: excessive paper work had to be eliminated, unnecessary handling had to be stopped, and tying tickets to stockings had to be eliminated in that it caused picks and pulls which contributed to mending cost. Storage space was too small and hindered locating items when wanted.

Solution. The entire problem was solved when simple classification stands were made of 2" x 2" pine lumber and bolted together. The pegs are made of maple, and the entire stand is covered with beaver-suede cloth. The total cost of each stand is about $12; a local cabinet shop made the stands.

The stands are placed in rows,

Top, empty hosiery stands showing type of construction. Bottom, rows of hosiery stands in use at Wisteria Hosiery Company in the grey inspection department.



UNION SPECIAL

...to help you

CUT COSTS, SPEED UP PRODUCTION!

All of the facilities and resources of Union Special Machine Company are concentrated on one objective: *industrial* sewing machines—specially designed TO HELP YOU CUT COSTS, SPEED UP PRODUCTION! The Union Special products you order today are actually more than just sewing machines. In every sense of the word, they are modern MACHINE TOOLS, each highly developed and precision-built for specific production jobs. And never have they been a *better* investment . . . FOR TODAY . . . FOR THE FUTURE!

UNION SPECIAL MACHINE COMPANY
407 N. Franklin St., Chicago 10, Ill.

INDUSTRIAL SEWING MACHINES

side by side. On the front of each is placed a small ticket showing style; the divisions made by the pegs represent sizes from 8½ through size 11. The color of ticket denotes classification of first quality, second, mender, etc. Any size or quality is easily and quickly located.

In practical operation, the checker takes the throw-outs to the proper stand, quickly places the stockings in correct spaces without tying, fills in master-ticket only at her desk, then awaits the next tray to be cleared. Reseams are placed on a small stand next to the desk. At a given time, reseams are wheeled to the seaming line and distributed for repairing. After repairs are made, they are returned to inspection.

Results. The new classification stands have the advantage of allowing quick inventory and locating any item quickly, the stock cards can be read without touching the stockings, mending cost has been reduced because picks and pulls caused by tying have been eliminated, cost of tickets and printing has been greatly reduced, and direct cost of labor has been reduced by 40% over previous methods of handling and classifying inspection throw-outs. The inspection department now operates efficiently.

Case 6

Body-Size Knitting Machines Effect 34% Savings

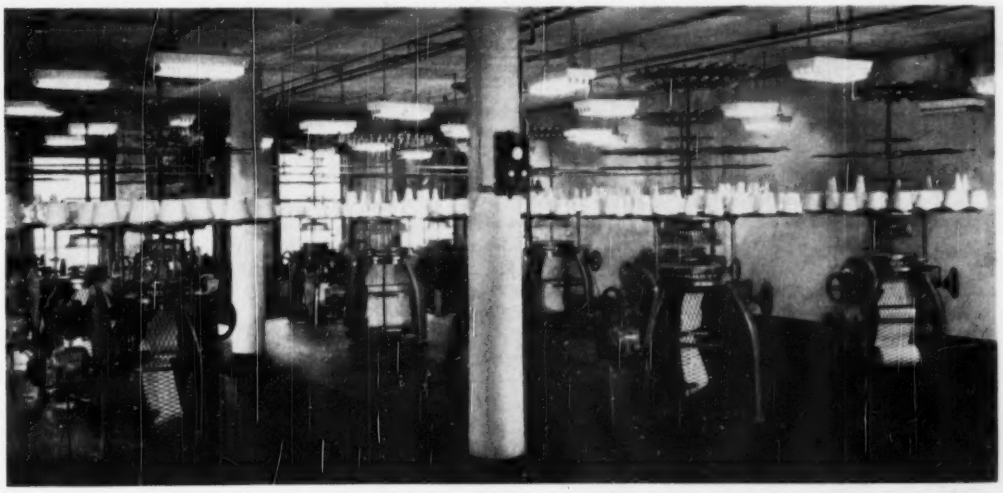
APEX Knitted Fabrics, Inc., New York, N. Y., replaced their obsolete knitting machines with Model MJ Supreme machines. The new high speed, circular, jersey knitting machines feature stationary yarnstands, Micromatic stitch control, and unit motor drive.

The changeover was completed in 1948, and records have been kept by the mill to determine the savings affected by making the change. The mill manufactures large quantities of underwear and outerwear fabrics. The new machines were installed to speed up production, lower manufacturing costs, and improve the quality of the cloth produced. In addition, it was desired to allow the garment manufacturer to eliminate slitting and sewing side seams and the need for matching stripes in sewing the seams.

Reduced Costs. Apex reports savings of approximately 34% over operating costs prior to installing the new equipment. These savings are broken down by the mill management into the following categories:

a. Increased machine speed and production.
b. Increased machine efficiency.
c. Lower labor costs on machine tending, servicing, and maintenance.

Group of new body-size knitting machines installed at Apex Knitted Fabrics, Inc., to increase production, lower costs, and improve quality of cloth produced.



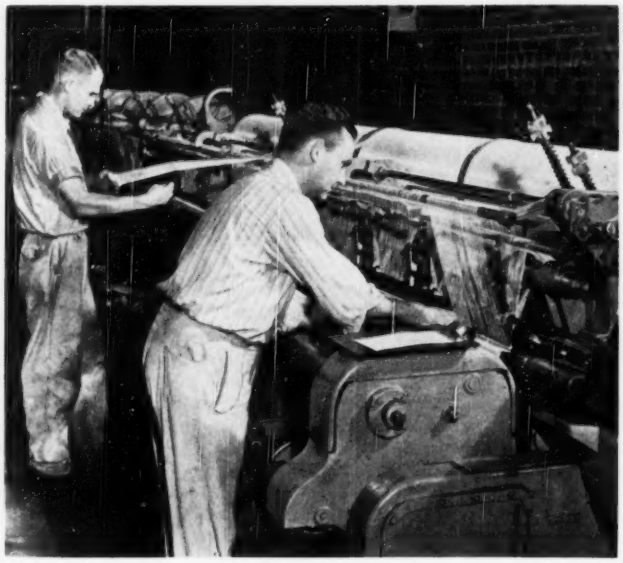
Case 7

Tricot Mill Reduces Waste With Scotch Tape

GUILFORD Mills, Lyman, N C., has found Scotch textile tapes to be very helpful and time saving in combing and tying-in warp threads on their tricot knitting machines.

As shown in the accompanying photo, the tape is used to hold the threads positively in correct position while operator on right uses a gauged spreader to draw the threads through the guide bar. The tape has been slit into shorter, more conveniently handled sections.

This plant finds that the Scotch tapes are advantageous in that they hold securely at a touch, require no moistening, and can be applied right on the spot without any waiting when it is needed. In addition, the adhesive does not dry out, there is no mess or oozing of adhesive to stain the goods.



Case 8

Spot Check on Hosiery Production Aids Quality

QUALITY and price are two factors which play a very important part in the operation of any mill. As this is written, price is the one factor which buyers, salesmen, and the mill haggle about most. Irrespective of prices for any type of goods, the quality should be good to meet fair competition.

In most mills there is a long gap between the time a given order is begun and completed ready for shipment. The larger the order the greater the danger of various errors, oversights, or carelessness which may cause profit losses or cancellations of orders. Even if strict standards are set up and adhered to, there should be some means of checking on quality at regular intervals to make sure that every department is doing an up-to-par job. This can be done by taking socks or stockings from each machine and attaching tabs to them so they can be identified later. Group various batches by fixers and operators, or use individual numbers for each machine or group of machines. After the goods are gathered, put them through all operations the same as regular goods, with right of way over everything to assure quick return.

After the goods are finished they can be checked for knitting defects, variations in length or sizes, dyeing, boarding, etc. How often these tests are made is, of course, entirely up to mill officials. They will give a fairly good picture of what a finished run of goods will look like when it reaches the packing tables. There are many factors which can directly or indirectly help to produce poor quality goods. Variations in yarns, temperature, and

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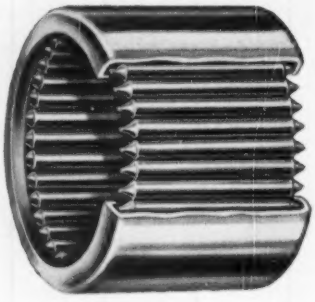

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humidity, carelessness when adjustments or repairs are made on knitting machines, failure to use correct yarns, improper marking of sizes, poor looping and careless boarding, just to name a few.

The irony of the whole situation in so far as the knitting departments are concerned is that once the goods are knit, nothing more can be done to improve the quality (of knitting). You must finish and sell what has been produced. Whether or not goods are properly made depends entirely on the knitting departments; here is where quality begins; it's up to all departments to carry their load.

Case 9

New Heat Exchangers and Boilers Cut Full-Fashioned Finishing Costs

THE Carol-May Finishing Company of Concord, N. C., has found that real money is wasted in the white clouds of exhaust steam traditionally associated with a full-fashioned hosiery finishing plant.

By reclaiming the heat in the steam exhausted by the hosiery preboarding machines this mill has reduced its steam costs by 32 per cent. Enough heat is extracted from this exhaust steam to heat all of the water used in the dye house plus all water used for boiler feedwater make-up.

Previously the steam was exhausted to atmosphere because it has generally been accepted by the industry as unavoidable waste due to its contamination by sizing. Also no attempt had previously been made to condense it due to the fear of imposing back pressure on the hosiery preboarding machines.

This same company has also effected substantial additional savings in boiler plant operating costs through the use of a packaged type oil-fired steam boiler plant with an efficiency curve advantageous to the type of operations found in hosiery finishing operations.

The steam load at the plant consists mainly of final boarding forms, seven Smith-Drum rotary dye machines, six Paramount retort type preboarders, and heat for the entire building.

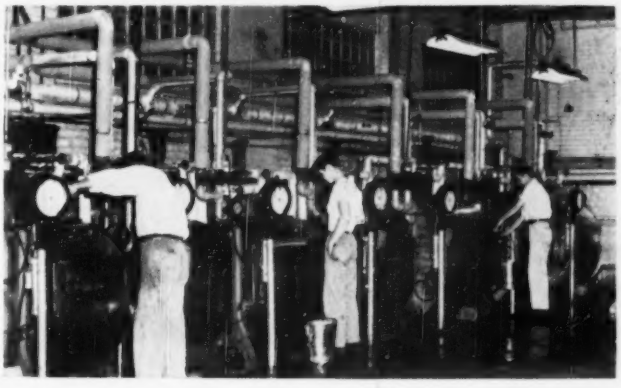
Heat Reclaim System. The heat reclaim system installed at this mill consists of a specially designed four-pass steam condenser, a hot water storage system, an automatic water circulating system, and a booster water heater to automatically control hot water temperature and to heat water when the reclaim system is not operating.

All of the preboarder machines exhaust into the steam condenser. Water from the hot water storage tank is circulated through the condenser tubes and back to the storage tank. Circulation is accomplished by means of a thermostatically controlled pump which maintains the desired water temperature in the storage tank. The condenser is designed so that it will pass the maximum steam flow when no water is flowing without imposing back pressure on the preboarder exhaust outlets.

This is important to the operation of the machines. Actually, when the system is in operation the condensing effect of the water flowing through the condenser tubes creates a slight vacuum in the steam side of the condenser thus assisting in the proper operation of the preboarder machines. The condensate from the exhaust steam is drained through a water seal in the condenser shell and is dumped to the sewer. Its contamination makes it unfit for return to the boiler as feedwater.

Savings. Douglas Dameron, treasurer and general manager of the Carol-May Company, states that the installation of the heat reclaim system in this mill has resulted in a definite fuel savings in the boiler room of 32 per cent, plus an additional savings of 20 minutes heating time on every dye lot. Another advantage is in hav-

Portion of the dyehouse showing the arrangement for feeding hot water from the heat reclaimers to the dyeing machines.



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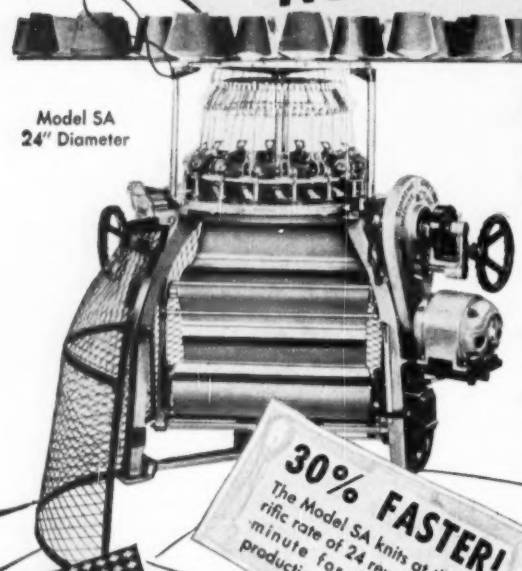

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Write today for *free* cloth samples and the booklet "Variable Stripes and Plaids Pay."

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30% FASTER!
The Model SA knits at the terrific rate of 24 revolutions per minute for 30% greater production.

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Synchronized cutters eliminate all yarn waste. Cloth does not have to be reversed for finishing. Buyer gets all cloth for his money.

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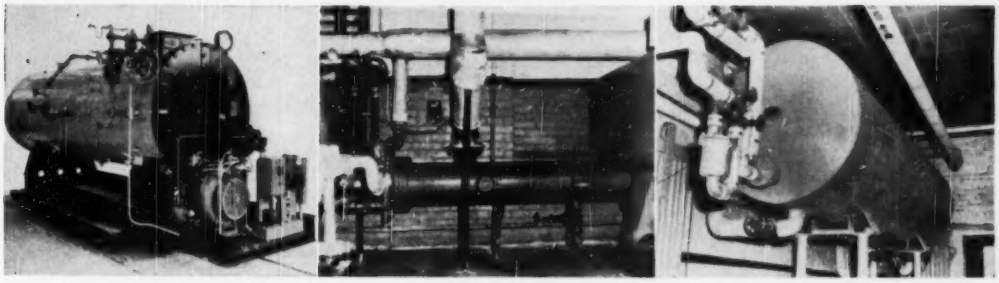


Left to right, 125 hp packaged boiler, four-pass steam condenser installed back of preboarding machines, and hot water storage tank.

ing a ready supply of hot water at all times.

By having "free" hot water instantly available, production in the dye room is expedited and better process results are obtained.

Boiler Plant. In the interest of modernization and efficiency, a new steam plant was also recently installed at this mill. Primary consideration was given to: (1) efficiency of steam generation (fuel consumption), (2) elimination of labor through safe automatic operation, and (3) cleanliness, which is so important.

The boiler selected was a Model LFO-12 packaged type oil-fired, four-pass unit rated at 125 boiler horsepower and 150 psi working pressure manufactured by the Cleaver-Brooks Company of Milwaukee, Wisconsin.

One of the main reasons for selecting this particular unit was the thermal efficiency characteristics of the unit in relation to the steam output. This point is important because a boiler for a hosiery finishing plant operates under a widely fluctuating load. It must be sized to take the maximum heating and process load. Much of the time, however, the boiler must operate at relatively light loads. This is true particularly on the night shifts during summer when the preboarding machines are the only steam consuming devices in operation.

Case 10

Reduce Excessive Summer Heat with Exhaust Fans

IN SMALL manufacturing plants of all types, where the cost of air conditioning systems is prohibitive, the problem of excessive heat in summer months becomes acute. This is especially true in single story buildings where the manufacturing operations cause lint or dust and there is no means of ejecting it from the building or bringing in a supply of fresh air. Some exhaust fans are placed in windows to help create a cross flow of air. Fans can be arranged to blow outward, creating a partial vacuum and causing air to come in through open windows.

Both of the forementioned arrangements will help to reduce heat and force out much of the excessive lint or dust, thus making a more agreeable place for employees to work. Considerable experimenting has been done with attic fans in private homes, and it has been found that better results can be obtained by placing a fan on an outside wall and causing a partial vacuum in the attic than by forcing air from lower rooms into the attic.

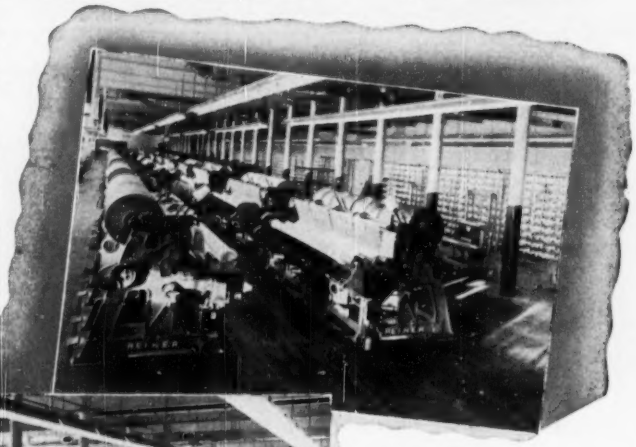
It is common knowledge that heat travels upward and carries lint and dust with it. In a low ceiling, single story building the overhead heat carrying capacity would soon be reached in hot weather, even with open ventilators installed on the roof. Without ventilators conditions would be worse for there would be no way for heat to escape except through open windows which means excessive heat would accumulate overhead and come down to window levels.

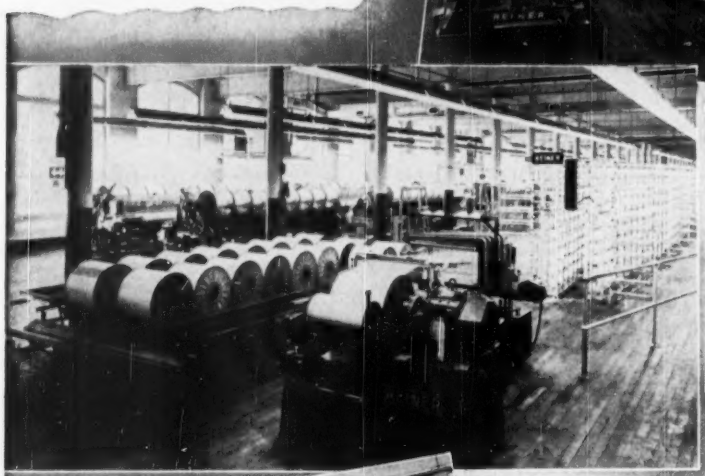
One way to reduce excessive heat is to carry the roof ventilator idea a bit further by building housings for three or four large exhaust fans on the roof. This would not only eliminate excessive overhead heat but also draw out dust and lint, create a partial vacuum and cause air to flow in from open windows. Of course this system cannot take the place of air conditioning, but it would make many small buildings a lot more agreeable to work in, and this should help toward offsetting the usual hot weather slow downs caused by fatigue.

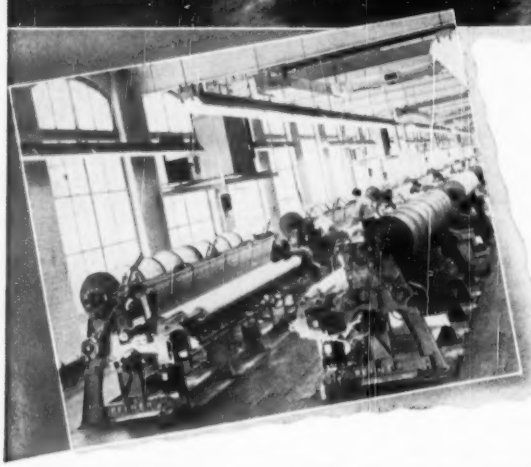
"THEY RUN LIKE CLOCK WORK"

—you hear comments like this among production-wise users of Reiner High Speed Tricot Machines and other Reiner equipment.

There is a reason, of course. Since 1945, we have installed over 600 units of this steady and profitable producer. New and repeat orders give vivid evidence of its mounting popularity among knitters who know good machines when they see and use them.







Photos courtesy
New Bedford Knitting Co.

The new Reiner High Speed Tricot Machine has a cruising speed in excess of 450 courses per minute, with a knitting width of 168 inches (or 84 inches with still higher speeds). It takes spools up to 21" warp flange diameter or of conventional size. Automatic oil feed lines throughout. It can be operated with either pattern wheel or a chain link drive. Widest selective pattern range of one bar or two bar tricot fabrics of rayon, nylon, silk, cotton, wool, etc. single-fibre or blended yarns. We also manufacture 3-bar machines. Gauges from 14 to 32.

The Reiner Warp Knit Line also includes:

a full line of preparatory equipment such as creels and warpers for all requirements, warping spools, hydraulic beam lift wagons, stop motion equipment, and auxiliary items, giving the knitter a continuous line from start to finish, all available from one source. Also Simplex machines and Raschel machines.

Ask for our richly illustrated catalogs, or, better still, write to us for an appointment to see this High Speed Tricot Machine in action at our showrooms in Weehawken, New Jersey.

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Case 11

Time-Temperature Control Lessens Costs in Dyeing Nylon Hosiery

ONE WAY to cut production costs in the manufacture of hosiery is by having your dyeing department controlled by time temperature control panels.

Why? First we must understand what control implies:

(1) Factors which cannot be controlled in dyehouse.
(2) Those which dyer can control and must control.

The most important is the latter, which consists of

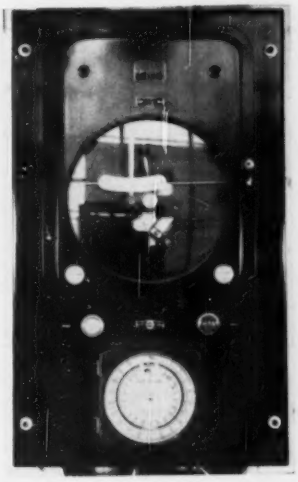
(1) Initial temperature of liquor
(2) Temperature when goods entered
(3) Time coming to boil
(4) Temperature curve to this boil
(5) Duration of boil
(6) Exact time of boil

Costs Reduced. The Chipman, Holton Knitting Company, Limited, of Hamilton, Ontario, Canada, recently installed Bristol proportional controls with reset panels which have produced five important cost reductions. Production is increased 22% because formulas are more accurate, therefore shorter time is taken to bring hosiery to shade, which also reduced steam costs 12%. Waste is reduced approximately 10%, with increased handle on finished goods.

In dyeing nylon hosiery consisting of two or more different filaments and deniers, when temperature must be controlled within plus or minus 5 degrees, these panels have solved a very difficult problem. Hosiery knitted of more than one type of fiber also have better shade balance. Dyekettle operators have a freer hand to carry out their duties while controls maintain the desired temperature, also holding bath ratio to minimum during process, reducing cost of chemicals used.

The foregoing factors combine to increase the all-round efficiency of the dyeing department.

The control panel consists of a single-unit instrument with a fluctuating free vane valve which controls temperature by use of a cam with follower arm actuated by an electrical timepiece. The unit is operated by compressed air. Aluminum cams graduated in three or five minute intervals and in 2°F points, can be drafted to any desired temperature curve.



Automatic control and indicator of the type used by Chipman, Holton Knitting Co., Ltd.

Case 12

Device for Checking Voltage Prevents Damage to Equipment

THE USE of electrically operated equipment and appliances has greatly increased in all manufacturing enterprises in recent years. To say that much depends on a constant flow of power is a rash understatement, for in many instances rpm is the governing factor in the finished product. A constant flow of power not only affects production of goods; it also has a direct bearing on useful life of equipment and maintenance cost as well.

High voltage can be just as dangerous as low voltage on much of the electrically driven equipment of today. It costs money to replace a burned out 5 or 10 hp motor, irrespective of the purpose it served or the cause of failure. Transformers for lighting equipment are not cheap, even when purchased by the dozen. All motors, for example, are plainly marked as to voltage, amperes, rpm, etc. It is strictly up to the owners to see that these requirements are met. Barring a complete power failure, the flow of power will usually be up to par. Frequently the cause of trouble may be in the plant's wiring circuits.

Adding equipment without checking whether or not existing lines will carry the additional load can cause trouble.

In years gone by the average plant electrician or master mechanic would find some difficulty in checking the voltage in a given line; today, however, it can be done easily and quickly with a device made for this purpose. One of these devices is a volt ammeter, Type AK-1, made by General Electric Co. Voltage and amperage can be checked in a few minutes by simply reading the meter. The initial cost of one of these devices is nominal, and saving one motor may liquidate the investment.

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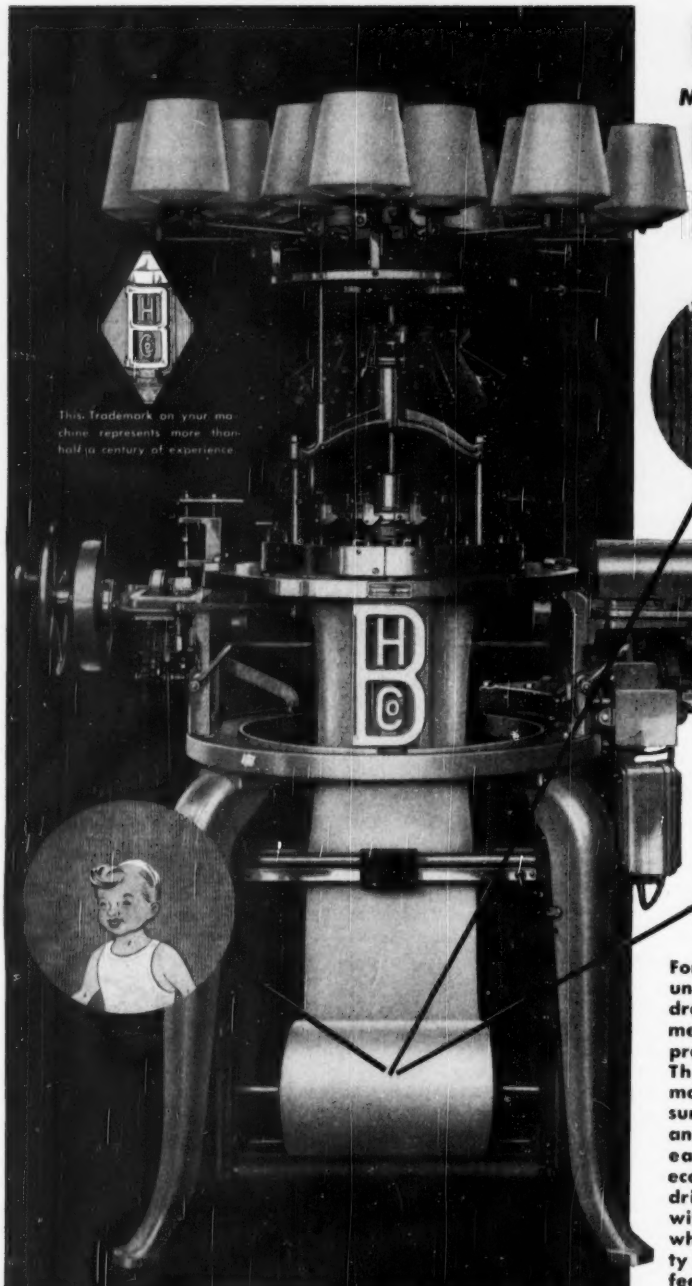

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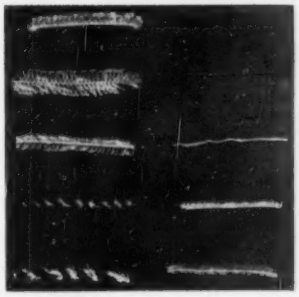
Our Bulletin awaits your request.

Novelty Yarns Made by Splitting Tricot

NOVELTY YARNS in great variety may be made by splitting certain specially constructed tricot fabrics, American Viscose Corporation has discovered. The process has been patented and the copyrighted name "Zipknit" applied to the yarn produced.

A non-exclusive license has been granted by Avisco to Queen City Textile Company of Allentown, Pa., for the production of the basic fabric. Clifton Yarn Mills, Clifton Heights, Pa., is set up to unzip the fabric, package and distribute Zipknit yarns.

Boucle and chenille-type yarns can be made by this process. In addition, a large variety of looped, plied, thick-and-thin, and elastic yarns can be manufactured which could not be produced in any other way. Random-pattern fabrics, without a definite repeat, are easily achieved, according to the announcement.



The ten Zipknit yarns shown here were knitted by American Viscose Co. in different weights and different designs and colors. They may be made quite fine and also very coarse.

When it is realized how many ends can be made on a machine 168 inches wide with 14 or 28 needles to the inch and that one operator can run more than one machine, the large productive capacity becomes apparent. It is also possible in some cases for tricot fabrics designed for producing these novelty yarns to be wound directly onto warp beams and unzipped into a warp as the final fabric is woven or knitted. The method of doing this, as well as a separate unzipping machine, have also been patented.

Although the core of Zipknit yarns may be made of either filament or spun yarns, the loops should contain smooth yarn to permit unzipping, according to Avisco.

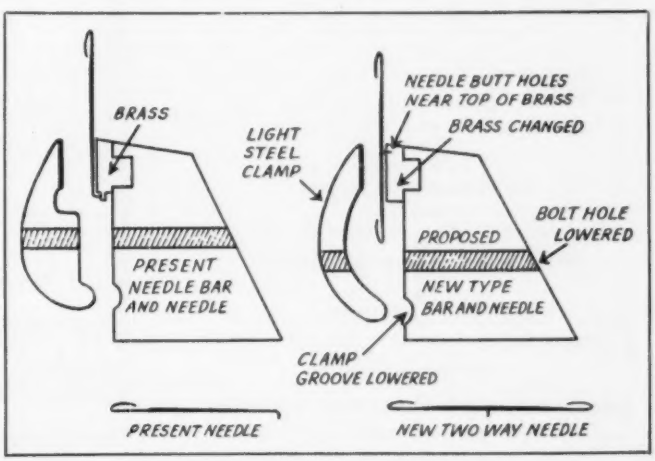
Further information may be obtained from American Viscose Corporation, Knitting Department, 350 Fifth Avenue, New York 1, N. Y.

Reversible Full-Fashioned Needle Proposed

This item was submitted in a kink contest.

A PROPOSED change on full fashioned machines would alter the needle bar to accommodate a reversible needle. The idea stemmed from the thought that a two-way needle could be turned in opposite position quickly should the beard on one end become bent, worn, or damaged. The proposal is based on the supposition that the overall cost of needles would be less in terms of replacements in that both ends of the needle would be usable and would actually be two needles in one.

According to the proposal, the needle bar would have to be changed somewhat, and the change could be incorporated on any full-fashioned machine. The accompanying illustrations show roughly the details of the proposed change. The sketches show the changes necessary on a Reading machine. CONTRIBUTOR No. 8244



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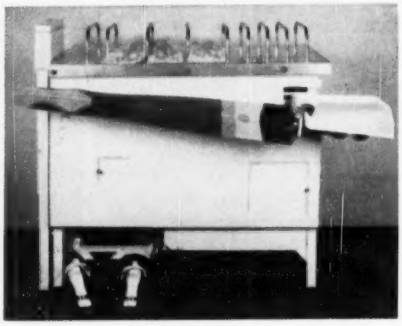

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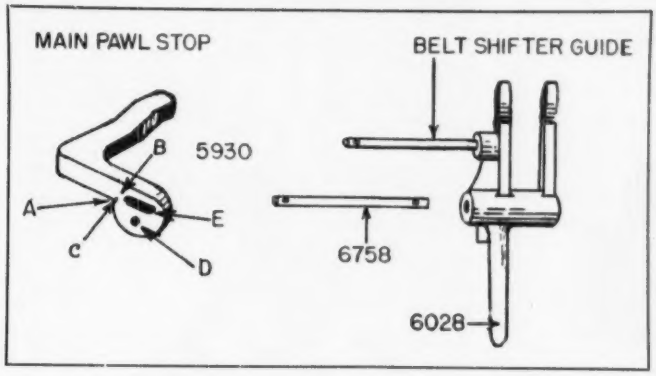

How to Prevent Loose Pawl Stops on Model K Machines

EDITOR TEXTILE INDUSTRIES:

The main pawl stop, on Model K Scott & Williams machines, is at times a sore spot to many fixers who work on these machines. Sometimes the pawl stop has a tendency to come loose.

The screw which holds the pawl stop (D), as shown in illustration, through setting over the chain often works loose and causes the main pawl to jam into the belt shifter guide rod at point (A). When this happens the pawl has to be shifted to loosen in order to reset the parts. Sometimes the trouble allows settings to become altered enough to cause waste in both time and production.

I have made a small change by taking the pawl stop off and drilling a hole for a 6/32 screw and filing a V at point (A). Also a hole should be drilled in the side at point (B) to lock this screw in whatever setting is required to allow free action for the main pawl. Set screw is set (at C) against screw of slot in the main pawl stop (E).

I have used this arrangement on my machines for about five years and have not had a main pawl lock on the belt shifter guide rod since installing them. The catalog numbers for the forementioned parts are 5930 (main pawl stop) and 6758 (belt shifter guide).

CONTRIBUTOR No. 8246

Method for Eliminating Press-Offs Due to Chokes

EDITOR TEXTILE INDUSTRIES:

When running cotton or other fibers that contain lint, much of the lint accumulates on the knitting machines. Dense deposits of lint occur at stop motions, yarn guides, and other parts of the machine where the yarn touches. Frequently small portions of these accumulations are picked up and carried along by the yarns. They are sometimes picked up at a considerable distance from the needles. When first picked up they are loose and fluffy, but as they pass through the large thread guides they become smaller, harder, and more firmly attached to the yarn.

Usually the last guide the yarn passes through (before it reaches the needles) has a hole somewhat smaller than the others. Sometimes a hard mass of lint passes through the small hole and sometimes it doesn't. When lint fails to pass through the hole, chokes occur, and the yarns break. Such breaks usually occur close to the needles, and the lower stop motion does not have time to stop the machine before a partial press-off occurs.

Occasionally a choke gets lodged in the hole and stops the portion of yarn passing through the lower stop motion, thereby preventing the lower stop motion from operating at all. When this occurs, many of the needles are damaged and there is a complete press-off.

Here is an idea that many knitting mills may use to advantage in preventing damage done by chokes. I suggest using thread guides with smaller holes than those commonly used as standard equipment. If the holes were as small as those in the guide nearest the needles, the gout or choke would be caught a sufficient distance from the needles to allow the stop motion to shut off the machine before a press-off is made. The yarn would be broken several inches from the needles, thereby preventing some of the press-offs, making others less troublesome, and preventing damage to the needles.

CONTRIBUTOR No. 8216

Hemphill Machine Makes Argyle Type Socks

Development of a solid color pattern knitting machine which will in one automatic operation make socks (with elastic tops) similar in appearance to those of diamond design usually made on hand frames, has been announced.

Increased production and lower operating costs are advantages cited for this Model SCP-51 machine, since one operator will be able to tend a larger number. A transfer-top attachment is available where production of ribbed tops is desired.

Hemphill Co., Pawtucket, R. I.

For additional data, request item B-301, using business reply card on page 214.

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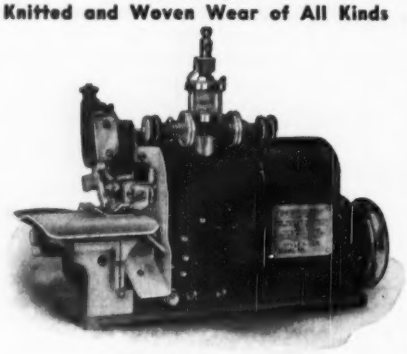

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for NYLON HOSIERY

. . . a Kali lubricant that reduces friction on the needles and sinkers and also makes carrier tubes last longer.

For cleaning nylon size from your needles, sinkers, bits, etc., use K.N.K. (Kali Needle Kleaner). It can be used straight, or mixed with equal parts of water without separating.

Yarns wet with Kalpinol give a good stitch, then dry within two inches of the needles. Stitch remains set. Birdseyes or slipping of the stitch are avoided. Rolling is prevented, making seaming easier.

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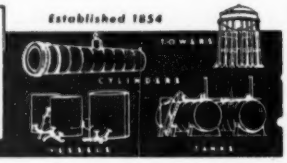

Knitting and Warp Yarn

4's to 30's

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Underwear Costs Are Revised

A number of the larger retail distributors show expectation that average replacement costs on many types of underwear will rise before spring, and some of the manufacturers and selling agents agree with this view. Mounting costs among the mills are said to have reached a point at which the whole pricing set-up for future trading must be revised.

Knitters cite the rise in yarn costs during the latter months of 1949 and the probability that yarns will cost even more later on. Within a period of about sixty days, the price of carded and combed cotton underwear yarns increased a cent or two. In addition, yarn spinners and sellers occupy a strong selling position, it is understood, the spinners having held production to a figure approximating actual sales.

It is explained that underwear manufacturers have pursued various policies as to forward coverage with yarns, but a good many of the smaller concerns, having earned unsatisfactory margins during 1949, seemed to concentrate on keeping year-end yarn inventories to as low a point as possible. Therefore, belated covering beyond mid-winter is expected to be brisk; this will give the yarn interests the opportunity they waited for, to further boost rates on underwear yarns. Thus the large integrated underwear mills will enjoy some advantages over their smaller competitors in this respect.

Hosiery Shortage Not Imminent

Regardless of complaints made by hosiery mills because supplies of nylon yarn were reduced, some industry leaders express the view that cutting down of spring allotments should bolster prices and help to stabilize the markets. It is asserted that no scarcity of stockings seems now to impend.

Three months' total shipments of women's full-fashioned nylons, up to November 1, amounted to sixteen per cent more than total shipments did in the like 1948 period. In fact, production was mounting rapidly during October, when twenty-three per cent more nylons were shipped than in the corresponding month of 1948.

An observer who is well informed but has no direct interest in hosiery makes this cogent comment: "The probable over-all effect of shrinkage of nylon yarn supply will be no more drastic than to lower production approximately to the 1948 general level. This should mean a fair amount of market strength through the first quarter, though supplies will continue adequate. Thereafter, as the bare-leg season approaches, customary price easing may be expected."

In another quarter, it is explained that nylon yarn allocations, to be fully understood, must be considered against the background of hosiery history over the past decade. It is recalled that 1939 was a very difficult year, with price cutting, wage chiseling and overproduction. Nylon stepped in to rescue the industry from chaos. That year about 48 million dozen pairs were produced, nearly all from silk. Wartime conditions later prevented excessive supply, but late in 1945, when nylon yarn again became available for hosiery, and with the advent of the new, high-speed, long-section automatic machinery, there commenced an alarming rise in output.

It is added that whereas 1949 is estimated to have seen the manufacture of about 48 million dozen pairs of nylons, if the industry had converted into stockings all of the nylon yarn it received in 1949, nearly 80 million dozen pairs would have been made. Therefore, according to this summary, the hosiery trade actually was "saved" when it re-sold part of its nylon yarn to weavers and tricot knitters.

Pensions Outlook Vital to Mills

Latest opinions expressed by seasoned knitwear spokesmen are to the general effect that the pension and other "fringe" grants wrung from steel manufacturers and other industrialists late in 1949 probably will set a pattern for 1950 negotiations between textile-apparel labor leaders and the employers in this field.

It is pointed out that mill managements in this sector of industry have not so far been bothered too much by the infiltration of organized workers. The inclination, accordingly, is to regard labor's interest in pension protection as being somebody else's affair.

Many months ago when labor leaders said they intended to get a liberal pension plan from the steel industry, textile leaders regarded it as a move simply intended to placate union dues-payers with a show of activity on their behalf by their highly-paid spokesmen. The actual outcome has been quite different.

The top executives of great concerns in the steel and automotive fields now talk of having to handle these newly assumed "social responsibilities," and they are trying to shift part of the financial burden onto the United States government by pressuring

a natural for the cotton industry

Style 28
Narrow Aisle Type.

A light weight, easy-running, smooth surface, long-lived carrier.

A variety of caster equipment available.

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Canvas Trucks

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LANE CANVAS BOX

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Inquire about our new filling-handling system. Eliminates dumping and waste.

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12,300,000 FEET OF *HOLT* MAPLE FLOORING!

HAVE GONE INTO TEXTILE MILLS THROUGHOUT THE COUNTRY SINCE 1920—WITH COMPLETE SATISFACTION TO THE MILL OPERATORS.

When you think of floors, remember to specify Holt Flooring, made from Northern Wisconsin-Michigan Hard Maple.

HOLT HARDWOOD COMPANY., OCONTO, WISCONSIN

Congressmen to support much greater outlay of taxpayers' money for various types of government-financed pensions.

Among those who try to keep watch on the solvency of large and small textile-garment outfits, and particularly in the knitwear trades, there is anxiety lest employers of textile labor "go overboard" on new and untried pension programs—mainly to stave off labor difficulties.

AN EYE ON THE KNITTING MILLS

Controlling interest in **Archer Mills, Inc.**, Columbus, Ga., has been acquired by **Wayne Knitting Mills**, Fort Wayne, Ind. The Archer plant will operate as an affiliated organization, with no change in operations.

A charter has been issued to **Lotus Hosiery Co., Inc.**, Philadelphia, Pa., to operate a knitting mill. H. H. Wexelblatt, 1411 Walnut St., Philadelphia, is representative.

Walridge Knitting Mills, Inc. is moving from Jonesboro, Ark., to Marvell, Ark., and will operate in conjunction with a looping plant which is owned by its proprietor, W. R. Spivey.

Construction of a one-story mill, equipped for manufacture of nylon knit goods, has been begun in Middletown, Del., by **Delaware Textile Co., Inc.**, of Elkton, Md.

Lorimer Hosiery Co., Burlington, N. C., has been incorporated with capital of $100,000 to operate a knitting mill. William Lorimer and C. C. Cates, Jr. are two of the incorporators.

Construction is under way by **Robinson Hosiery Co.**, Gastonia, N. C., on a one-story building to be equipped for the manufacture of 51 gauge full-fashioned hosiery.

A new finishing plant will be established at Graham, N. C., by **Monarch Hosiery Mills**, Burlington, N. C.

A one-story addition to the **R & J Hosiery Mfg. Co.**, Saluda, N. C., now under construction, will double present capacity, it has been announced.

Production of seamless hosiery is planned for the newly chartered **Landrum (S. C.) Hosiery Mills, Inc.** C. E. A. Keene of Landrum is president.

The mill and equipment of Wynwood Mills has been acquired by **Johnson City (Tenn.) Mills, Inc.** for expansion of production of seamless hosiery.

Lykens (Pa.) Hosiery Mill Co. has purchased the machinery, fixtures, and stock of the Georgia Mfg. Co., Columbus, Ga., and will continue in operation at Columbus if suitable space can be found.

A million dollar expansion plan has been announced by **Sapphire Hosiery Corp.**, Philadelphia, Pa. Work has been scheduled for an addition to the Telford, Pa. plant and additional Kalio machines will be installed.

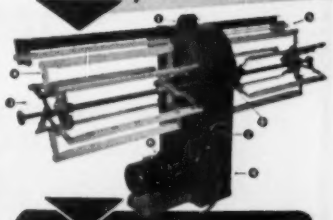
New machinery for the manufacture of approximately 100,000 pairs of women's hosiery annually, has been installed in the newly organized **Winchester (Va.) Hosiery Corp.** Richard Voitel is president and general manager of the new firm.

Announcement has been made of the sale of the **Willow Grove (Pa.) Hosiery Mills, Inc.** to Irving Cohen of New York, N. Y. The name of the mill has been changed to Quality Hosiery Co.

A knitting mill, to be known as **Ware-Turner Manufacturing Company**, has been organized in Barnesville, Ga. by R. A. Ware and George T. Turner. The plant will manufacture T-shirts.

Lynne Hosiery Mills, Inc., Mount Airy, N. C., infant's hosiery, has plans maturing for a one-story addition.

The New FIDELITY SKEIN REELER OFFERS THESE IMPORTANT Improvements



1. Automatic skein-weight control.
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3. Free-end collapsible reels.
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The most radical development in skein reeler design in more than forty years.

Operator efficiency may be increased from 25% to 100% depending on yarn processing methods.

Automatic features eliminate the necessity for constant attention, permitting one operator to service several machines.

Available single end or double end, handling from six to twelve skeins, these new skein reelers are a challenge to old-fashioned production methods. Write for the latest information on this marked advance in skein reeling.

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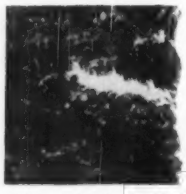
Fabric sample treated with a Cunilate, after 14-day burial in soil bed, showing no degradation.



Identical fabric sample without Cunilate, after 14-day burial in soil bed, showing complete degradation.

*Patents and Trademark pending.

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—and intensive testing, by industry and government agencies, have produced highly effective, non-toxic, permanent fungicides —Cunilates. Protect fabrics, thread, webbing, cordage, coatings, and other susceptible materials, against destructive organisms.

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- Economical
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We invite comparative tests with other fungicides. Cunilates are manufactured to the highest standards of purity and consistently fine quality.

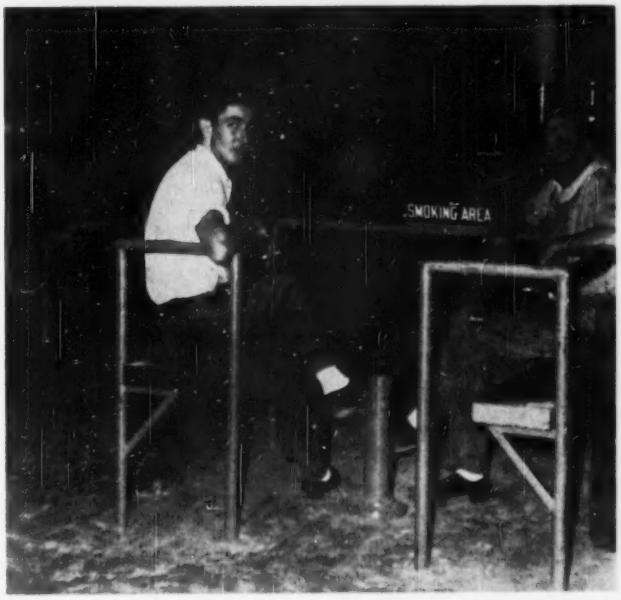
BROCHURE ON REQUEST

Write for detailed information and test data on your specific problems.

Smoking Area in Mill Saves Time

SNEAKING a quick drag on a cigarette in the "powder room," much as it might contribute to employee morale, more often contributes to lost time in production. The smoking problem has been attacked by various textile mills in several ways. It has been outlawed entirely in some plants, and violators are subject to dismissal. This method breeds resentment. In some cases, the psychological need for smoking has been recognized, and specially designated salons or rest rooms have been set aside for this purpose. But here too, the employee's time is lost to the company.

The Bachmann Uxbridge Worsted Corp. is experimenting with a compromise solution. At their Uxbridge, Mass., plant they constructed smoking pens on the production floors of each department. The pens are at least ten feet removed from the nearest fire hazard. Each employee is entitled to use the pen once every two hours.



The privilege is not extended for two hours following the start of the shift and for one hour prior to the shift's end. Since the smoker is near his equipment, he can keep a watchful eye on it. Furthermore, the long wasteful trip to the "powder room" has been virtually eliminated, thereby saving time.

More Discussion on Nine-Cylinder Slashers

Question Briefed: *We are operating a nine-cylinder slasher. First roll is covered with cotton and wool cloth in three-yard lengths, respectively. This roll weighs 514 pounds. The second roll is rubber covered and weighs 628 pounds. Too much size is left on the warp. We size 30/1 cotton warps with 3000 ends. What temperatures should be most suitable for the nine cylinders when running cotton and when running rayon?* (CONTRIBUTOR No. 8209, *December* 1949.)

EDITOR TEXTILE INDUSTRIES:

The rubber covered rolls should not be run next to the cylinders. These rolls sometimes get out of round, and it may be desirable for CONTRIBUTOR No. 8209 to check his rubber rolls to see if they are dressing the warp firmly and evenly across the entire width. A high shoulder on each end of the rolls may be keeping them from dressing the size off properly.

A good practice when using rubber covered rolls is to cover them with a short piece of slasher cloth and then put a wool sock on the roll to cover the entire surface.

The difficulties experienced by CONTRIBUTOR No. 8209 may be caused by a combination of several factors rather than any one single item.

I suggest that he dress the rubber covered rolls evenly and cover them as suggested; then move them to the position farthest from the cylinders. Dilute the size mix so it will not be quite so thick. If necessary, increase the pressure on the finishing rolls, and lower cyl-

inder temperature to prevent baking. If the squeeze rolls are altered to dress the yarn properly, he may wish to increase the slasher speed somewhat instead of lowering cylinder temperature to prevent baking.

CONTRIBUTOR No. 8215

Discussion on Half-Life of Radioactive Element 84

Editor's Note: The following letter from one reader calls attention to the half-life of polonium (Element 84) which was set forth erroneously in the article "Radioactive Element 84 Neutralizes Static Changes" appearing in the December 1949 issue. Many favorable comments were received; however the one published here will be of special interest.

EDITOR TEXTILE INDUSTRIES:

We have read with considerable interest the article on Polonium Static Eliminators in the December, 1949 issue of TEXTILE INDUSTRIES. We have used your magazine for advertising in the past and have always felt that your publication was designed to offer a service to the textile industry. We feel, therefore, that we should point out to you a gross misstatement of fact contained in the above-mentioned article which, if considered by itself, appears quite innocent but is really the essential feature in determining whether a polonium static eliminator is or is not an economical investment.

The article states that the half life of polonium is approximately 18 months, whereas reference to any elementary text book on radioactivity will indicate that the half-life of polonium is between 136 and 140 days, the latter period being now the general accepted value. This means that, instead of decreasing in intensity by 50% in 18 months, the material decreases in intensity by 50% in 140 days, decreasing by another 50% in the next 140 days, and so on. At 140 days, in other words, polonium has one-half the radiating strength initially present, after 280 days, one-quarter the initial strength, and after 420 days, one-eighth the initial strength. The decrease in radiating strength of polonium is a well-established factor and has been known for many years. There is no question regarding the rate of disintegration and no probability exists regarding the increase in rate at any given time during the life of the material.

Polonium has a very definite use as a static eliminator and the only question involved is the economics of an installation. There is a considerable difference between a half-life of 140 days and 18 months and unless a potential purchaser of such equipment is aware of this fact, he is definitely being misled with information which he could readily check but in most cases will make no effort to check. We believe that this bit of information contained in the article can do considerable harm to industry and can lead to a definite distrust of any radioactive material for static elimination purposes.

The article states also that the polonium device is the first commercial alpha radiator which is a slight misstatement of fact since radium units were in use quite some time before the polonium unit was ever developed.

The article also refers in several instances to the non-hazardous nature of polonium and this reference is true only under certain conditions. Polonium itself ingested is only slightly less harmful than radium or similar radioactive materials and extreme care must, therefore, be taken to make certain that any units containing the material are completely and adequately shielded to eliminate any possibility of ingestion of radioactive material.

As we mentioned previously, a polonium unit can definitely be designed to overcome the possibility of ingesting radioactive materials and such units can in many applications be utilized to advantage. We believe, however, that it is only fair to the industry to present the facts of the case correctly and then let industry determine whether the

$ 8 Your Idea May Win $100 $ 8

This contest ends March 15, 1950

ONE HUNDRED DOLLARS will be awarded for the most helpful short cut, kink, time-saving device, cost-cutting suggestion, or quality improvement idea submitted by March 15.

The contest is open to any reader of this magazine. Contributions eligible for the prize must not have appeared elsewhere.

All material will be paid for at regular space rates upon acceptance irrespective of the contest winner. Advise when submitting entry if participant's name may be used. Only one award will be made in each contest.

Participants are not restricted as to number of items submitted to compete in the contest. Each entry should be described in sufficient detail to make it easily understood, and where possible, glossy photographs or pencil sketches should be included. Finished drawings are not necessary.

All entries for this contest must be postmarked not later than midnight March 15, 1950. Address: Editor "Textile Industries," 806 Peachtree Street, N. E., Atlanta 5, Georgia.

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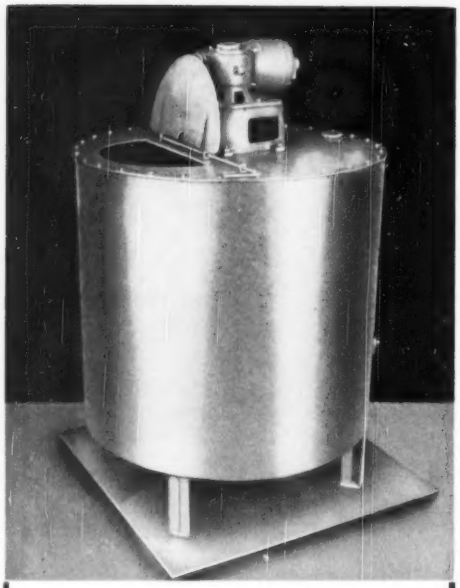

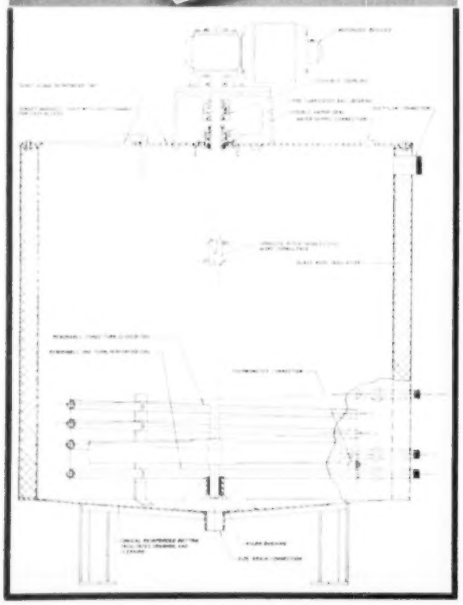

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Shown at left is one of their combination all-stainless-steel kettles that can be used for cooking or storing size.

All internal parts and the main body of these kettles are made from Type 316 Stainless Steel. These kettles are insulated with glass wool, encased with an outside jacket of stainless steel, and driven by a geared motor unit connected by flexible coupling to the stirrer shaft.

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STEAM-JACKETED AND CUSTOM-BUILT KETTLES A SPECIALTY

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HIGH PRESSURE STAINLESS STEEL OR COPPER CYLINDERS
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Prices without Obligations

use of the material is practical from an economical standpoint. Misrepresentation of the properties of the units is not fair to the public and can result only in disappointment and the definite development of an aversion to the use of any radioactive device.

C. W. WALLHAUSEN
Vice-President
United States Radium Corp.
New York 7, N. Y.

Cabinet for Lunch Boxes Aids Good Housekeeping

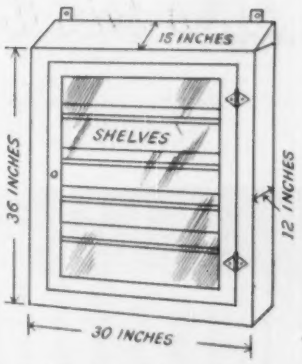
EDITOR TEXTILE INDUSTRIES:

For the past several months we have carried on a program to improve the housekeeping in our mill. Our operatives have been instructed to use the cuspidors and trash cans that have been placed at convenient locations near their jobs. Other receptacles for waste have been provided to aid further in maintaining cleanliness.

A common practice in many mills is to allow the employees to keep their lunches and lunch boxes anywhere they wish. As a result, lunches may be found scattered throughout the mill; on machines, tool boxes, gear cabinets, etc.

In instructing our employees on how to maintan better housekeeping, we have tried to get them to avoid the causes of poor housekeeping in the first place.

We have provided lunch cabinets for our operatives to place their lunches in until they are needed. A cabinet can be attached to the wall where it will be out of the way, and it can be painted to present a neat appearance. The accompanying sketch shows one type of cabinet. The measurements can be increased or altered to take care of the requirements in various mills.



Details of lunch box cabinet.

We have found that when a person forms the habit of keeping his lunch in a clean place he also forms a habit of putting his lunch waste and paper wrappings into the garbage can. After we installed cabinets, morale improved.

CONTRIBUTOR NO. 8237

Effect of Twist in Sizing Cotton Yarn

Question Briefed: *In sizing cotton warp yarns, what are the major factors that determine the per cent of size added to the yarn? Is the concentration of the size solution the controlling factor, or should the twist in the yarn be given equal consideration?* (CONTRIBUTOR NO. 8222, *December*, 1949.)

EDITOR TEXTILE INDUSTRIES:

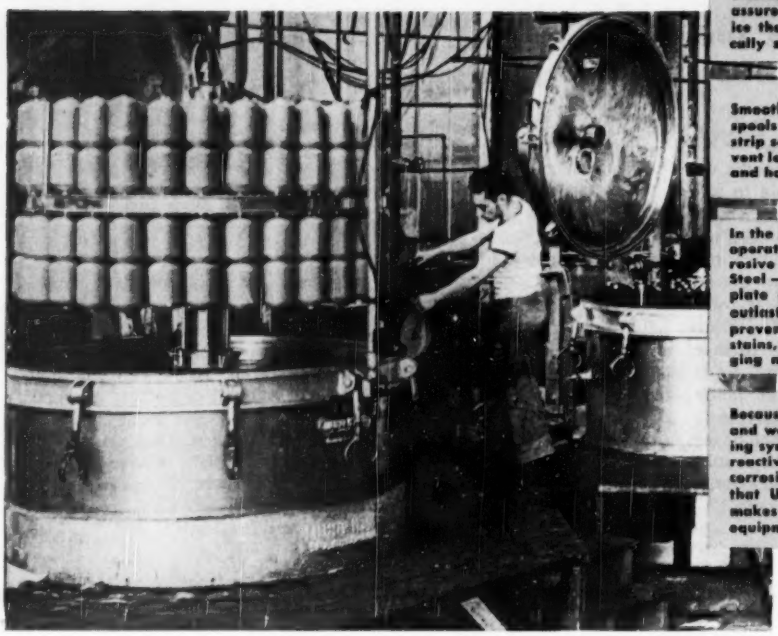
Twist in spun yarns imparts a spiral arrangement of the fibers by revolving a strand of fiber web about its axis. The primary function of twist is to increase the coefficient of friction at the interfacial surfaces of the fibers, resulting in yarn strength which increases to certain maximums in keeping with the twist applied. While the amount of twist may be varied appreciably to meet the requirements of a fabric in question, in general, the yarn is twisted to obtain maximum strength.

Should a mill be producing only one single pattern of cotton yarn and to meet specification applying maximum twist for strength, it would be exclusively a matter of considering the type of sizing and concentration of the size for securing best weaving results. In this case the maximum permanent strength would be realized through application of twist to the natural fibers, and the function of the sizing would be to further temporarily strengthen, bond, and sheathe the fibers for weaving purposes.

Yarn containing the optimum twist for strength affords a yarn in which the fibers have been more closely packaged. As a result, smaller interstices between the fibers are present than would be with the same yarn containing less twist. Therefore, yarns with less twist than standard maximums are lower in permanent strength, have larger interstices between the fibers, are more susceptible to showing strength improvement through sizing (i.e. temporary added strength), and have a greater inner yarn capacity for a given sizing than would a similar yarn containing maximum twist.

Specifically, two similar yarns, one maximum twist and one low twist, when simultaneously sized with a given mixture would favor more penetration into the lower twisted yarn and more coating of

Who said it costs more to use Stainless Steel?



Consider these facts:

Heddles, reeds and drop wires made of U·S·S Stainless Steel wire last far longer and are more efficient than ordinary parts. For chemically treated synthetic yarns, Stainless Steel heddles and reeds assure such definitely superior service that they have become practically standard equipment.

Smooth, easily cleaned dyeing spools made of U·S·S Stainless strip save time and labor and prevent losses from yarn breakage . . . and how they last!

In the dye house where equipment operates under exceedingly corrosive conditions, U·S·S Stainless Steel — whether used in sheet, plate or tubular form — not only outlasts other materials but by preventing fabric losses caused by stains, canker, color-lag and snagging more than pays for itself.

Because piping, aging tanks, driers and washers used for manufacturing synthetic fibers must withstand reactive reagents that are highly corrosive, the superior protection that U·S·S Stainless Steel assures makes it most economical for such equipment.

STAINLESS STEEL'S ability to keep textile-processing equipment longer on the job—to reduce shutdowns for repairs to a minimum—to materially decrease maintenance and cleaning costs, make Stainless Steel for many applications not only the most efficient but, in the long run, actually the *lowest-cost* material you can use.

The thing that gives Stainless Steel a marked *cost-cutting* advantage over other materials is its proved superiority: in resisting the inroads of corrosive attack; in preventing metallic contamination; in resisting erosion, wear and abrasion; and in withstanding extremes of heat and cold. These properties are inherent in the steel—they cannot wear off or chip off with use.

It is not mere coincidence that mills having the best production records are invariably large users of Stainless Steel—and are constantly extending its application. They've found that the difference it makes in performance is *always* greater than any difference in initial cost that its use may involve.

In U·S·S Stainless Steels we offer you a complete family of *perfected* special-purpose steels that will meet almost any requirement of textile mill service. Our engineers are specialists in its use and will gladly assist you in selecting the proper type to ensure the greatest benefits from its application.

AMERICAN STEEL & WIRE COMPANY, GENERAL OFFICES: CLEVELAND, OHIO · CARNEGIE-ILLINOIS STEEL CORPORATION, PITTSBURGH & CHICAGO
COLUMBIA STEEL COMPANY, SAN FRANCISCO · NATIONAL TUBE COMPANY, PITTSBURGH · TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM
UNITED STATES STEEL SUPPLY COMPANY, WAREHOUSE DISTRIBUTORS, COAST-TO-COAST · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS

U·S·S STAINLESS STEEL

SHEETS · STRIP · PLATES · BARS · BILLETS · PIPE · TUBES · WIRE · SPECIAL SECTIONS

S-2022

UNITED STATES STEEL

the yarn containing the higher twist. An examination of the two sized yarns for size content may show that the lower twisted yarn contained the higher percentage of sizing solids; however, it may not. In any event the sizing in each of the yarns, viewed as stained cross sections by aid of the microscope, will show greater penetration of the sizing into the low twist yarn and less surface sheathing as compared to the high twist yarn which shows less penetration of the sizing and a more dense coating.

These considerations lead to the conclusion that lowering the twist will facilitate penetration at the expense of sheathing. On low twist yarns a sizing of higher viscosity should be used in order to minimize penetration and to establish proper coating or sheathing.

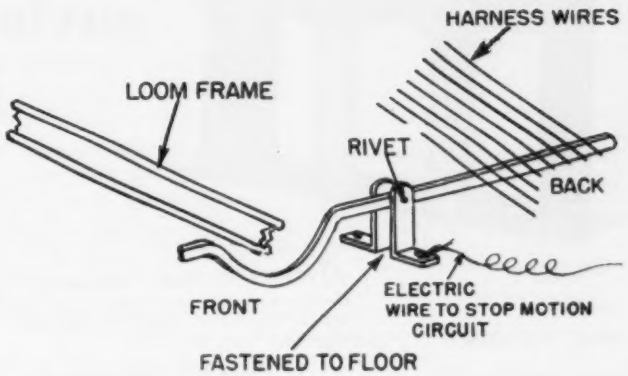
CONTRIBUTOR No. 8236

Stop Motion for Broken Harness Straps

EDITOR TEXTILE INDUSTRIES:

A device which is time saving and cost cutting is inexpensive to install on looms to stop operations in case of broken harness straps, wires, and stirrups.

The material required to make the "stop motion" consists of an old steel heddle bar, two screws, and a piece of electric wire to run from a wire which goes to the drop wires and to the stop motion which is screwed to the floor. The electric wire runs under the horizontal harness wires beneath the loom and may be connected to the same circuit as the drop wire stop motion.



Two pieces of heddle bar about three or four inches long can be used to make the stand. Take one piece of heddle bar 2½ feet long and bore a hole for a pivot point so the bar will be off balance enough to allow the front portion to point downward (see sketch).

Should any of the harness wires or straps break, the horizontal wire beneath the loom will fall on back of the electric wire, causing the front end of the heddle bar to rise enough to contact frame of the loom. The contact automatically grounds the electrical circuit and stops the loom. This stop motion saves hours of time on pick outs.

CONTRIBUTOR No. 8230

Discussion on Operator and Machine Efficiency

EDITOR TEXTILE INDUSTRIES:

This refers to the article by George E. Tucker, in your May 1949 issue, entitled "Industrial Engineering for the Small Plant."

According to the forms reproduced on pages 104 and 107, presumably covering the same job, a 75-point-hour operator will produce 73 lb per hour on 16s/1 yarn at 440 ypm, tending 40 spindles.

This figures out slightly over 93% machine efficiency. Also, a fatigue allowance of 13% is permitted. In other words, with a fatigue allowance of 13% the operator is assumed to be working only 87% of her time.

That being the case, how can the machine tender operate her assignment at 93% efficiency?

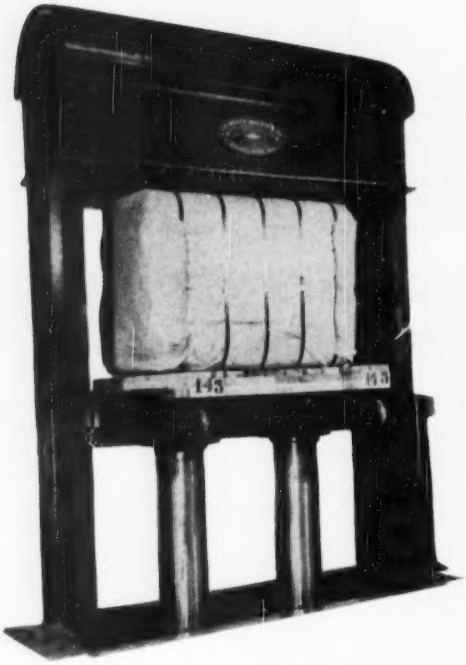
Here is where I get the 13% fatigue allowance: The author adds 15% to the point value per cone (multiplies by 1.15). This can then be converted to a percentage of time worked by the operator:

$$100 - \frac{.15 \times 100}{1.15} = 87\%$$

I should appreciate the author clearing up this question for me.

CONTRIBUTOR No. 8258

Editor's Note: The foregoing question was answered prior to publication. The answer appears on page 173 of this issue.



UP TO **33%**

saving in time

WITH BEATY'S NEW

Balanced

CLOTH BALING PRESS

A REVOLUTIONARY development by Beaty of a *BALANCED* baling press—with platen on wheels—is a great advance in the cloth baling process. Newly re-designed and self-contained, BEATY'S Hydraulic Cloth Balers are highly praised by Mills operating them. They offer:

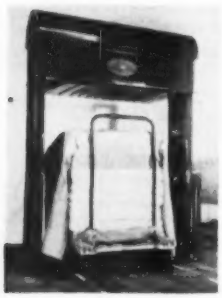
1) **GREATER BALANCE** with TWO rams
2) **TIME SAVING**—up to 33% over old types
3) **NO OIL LEAKS**—balers sealed against leakage
4) **REDUCED COSTS**—handling costs reduced materially
5) **SIZES**—from 50 to 200 tons as density requires (single ram types also available)

J. T. BEATY MACHINE CO.

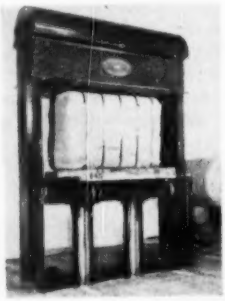
809 N. GRAHAM ST. CHARLOTTE, N. C.

The South's Pioneer Manufacturers of Hydraulic Cloth Baling Presses

1) Loaded cloth truck rolled into position over pressure block, ready for baling.



2) Bale completely compressed with ties put on and ready to be lowered.



3) Bale and truck lowered, pipe handle replaced and ready to be rolled to storage.

WRITE, WIRE OR PHONE FOR MORE COMPLETE INFORMATION

EDITOR TEXTILE INDUSTRIES:

In answer to CONTRIBUTOR No. 8258, operator efficiency and machine efficiency are two entirely different things. A measure of one does not indicate a measure of the other. If an operator is assigned more machines than is required to give a full job, a loss in machine efficiency results with no resulting loss in operator efficiency. On the other hand an underassignment of machines to an operator results in high machine efficiency and low operator efficiency.

If we think in terms of the absurd situation where a winder operator is assigned to run only one winder spindle, it becomes readily apparent that the spindle can be operated at an efficiency of 95% or better. The operator, however, would have considerable waiting time resulting in operator efficiency of less than 5%. This waiting time, of course, would include any time allowance for rest and fatigue that are part of the labor standard.

In the example shown in the article the expected machine efficiency is:

$$100 \times \frac{75 \div 1.03}{(40 \times 440 \times 60) \div (840 \times 16)} = \frac{72.8}{78.5} = 92.7\%$$

The expected operator efficiency is:

$$100 \times \frac{1}{1.15} = 87\%$$

The working time, not including rest and fatigue (15%), required of the operator to produce a pound of yarn at the 60 point hour performance level is:

$\frac{1.03}{1.15} = 0.896$ minutes.

$1.030 - 0.896 = 0.134$ minutes for rest and fatigue per pound.

If the operator performs at the 75 point hour level, the time, not including rest and fatigue, required to produce a pound of yarn is:

$$0.896 \times \frac{60}{75} = 0.717 \text{ minutes}$$

To produce 72.8 pounds of yarn per hour requires:

$0.717 \times 72.8 = 52.2$ minutes work without allowances.

The operator has: 60.0 — 52.2 = 7.8 minutes for rest and fatigue during the hour.

$100 \times \frac{7.8}{52.2} = 14.92\%$ rest and fatigue allowance, or

$100 \times \frac{52.2}{60} = 87.0\%$ of the time the operator works at the 75 point hour performance level.

GEORGE E. TUCKER

Method for Reclaiming Studs

This item was submitted in a kink contest.

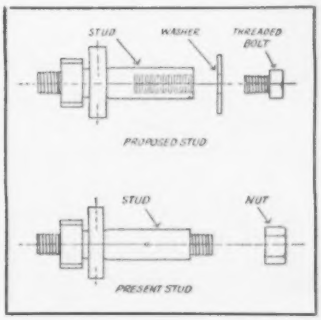
EDITOR TEXTILE INDUSTRIES:

In mills where the draft gear on roving frames is changed often, it is a common occurrence for the end of the stud to be twisted off. Threads are often stripped, and the fixer has to install a new stud. These troubles cause a loss in production, and the cost of new parts adds to operating expenses.

The accompanying drawing shows how draft gear studs can be reclaimed after the threads are stripped or ends twisted off. After tapping out, threading, and adding bolt with washer, the studs can be used indefinitely. If the head of the bolt is twisted off, the bolt can be removed, and the stud can be retained in use.

Many mills may find the foregoing suggestion a welcome measure to conserve expenditures.

CONTRIBUTOR NO. 8241



Question on Oiling Cotton

EDITOR TEXTILE INDUSTRIES:

As I recall, approximately ten years ago the mills were very enthusiastic about spraying cotton with oil in the picking process. Has this enthusiasm continued through the years, or have they found some disadvantages which caused them to discontinue the practice?

We should appreciate the comments of mills who have had experience with spraying oil on cotton at the pickers. The benefits, point of application, staple of stock, picker beaters used, disadvantages, amount of oil applied, and any other pertinent information on the subject would be welcome.

CONTRIBUTOR NO. 8249

Easy Formula for Loom Production

EDITOR TEXTILE INDUSTRIES:

The readers of your magazine may be interested in the following formula which eliminates much calculating to get the yardage production on any width loom:

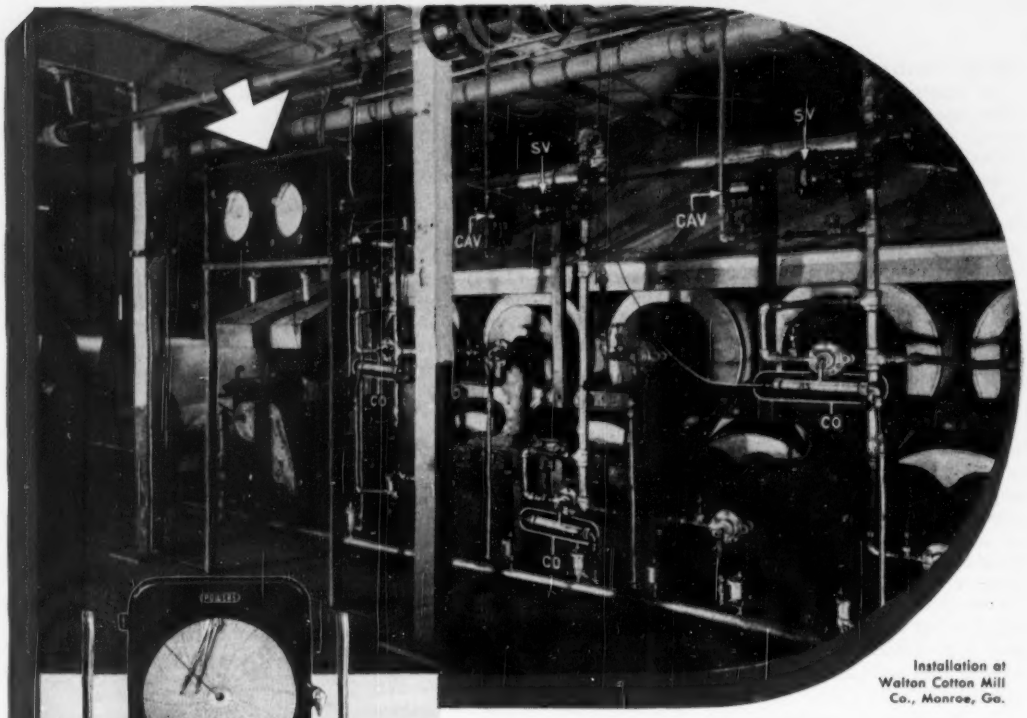
$$\frac{\text{Picks per Min. X 200}}{\text{Picks per Inch}} = \text{100\% Yardage Production for 120 hrs.}$$

This formula is for any loom width and for any type of cloth.

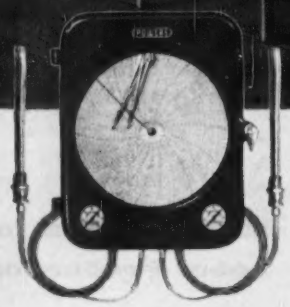
Example: On 40 x 48 Cotton Cloth. If the loom is running 150 picks per minute, multiply 150 x 200, which gives 30,000. Divide this amount by the picks per inch, or 40, and the result will be 750 yards for 120 hours. If the production for 40 hours is desired, divide 750 yards by 3. This gives 250 yards for 40 hours.

My efforts were to simplify the constant method so there would be less chance of error because of the numerous constants for various styles.

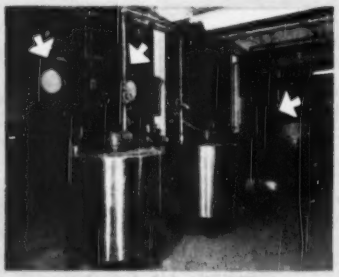
CONTRIBUTOR NO. 8234



Installation at Walton Cotton Mill Co., Monroe, Ga.



Above: POWERS 2-Pen Recording Regulator used to control temperature of size box and slasher cylinders. **Below:** Size Cooking and Storage Kettles controlled by POWERS Recording Regulators. Both manually set and automatic time cycle types are available.



POWERS Slasher and Size control gives trouble-free, dependable regulation at a REASONABLE PRICE...

POWERS SIMPLIFIED CONTROL pays a good return on a smaller initial investment. Lower maintenance expense and more dependable operation are other important advantages.

Nine cylinder (rayon type) slasher shown above is used for preparing cotton warps. Temperature control of cylinders is accomplished by dividing the 9 cylinders into groups or zones of 3 each. One cylinder of each zone is equipped with a specially constructed "condensate fitting" (CO) in which is mounted the temperature sensitive bulb of a recording regulator. When temperature of condensate rises above set point, the steam control valve (SV) closes, and valve (CAV) handling compressed air is opened, continuing the removal of condensate from cylinders. One of the recorder regulator sensitive bulbs controls and records size box temperature.

SPECIAL: Powers pneumatic type size level regulator controls level in size box.

We welcome the opportunity of submitting an estimate of the cost of this type of control for your slashers. There's no obligation. Phone or write our nearest office.

POWERS

TEMPERATURE • HUMIDITY CONTROL

THE POWERS REGULATOR COMPANY

ATLANTA, GA.—142 Spring Street, N. W., BOSTON 15, MASS.—125 St. Botolph Street, GREENSBORO, N. C.—733 Jefferson Standard Building, PHILADELPHIA 32, PA.—2240 North Broad Street (TS) *Offices in over 50 cities. See your phone book.*

NEW EQUIPMENT
AND MATERIALS

Miniature Slasher Features Versatility

THE multi-purpose slasher described in this article was developed by the Callaway Mills Company and is now available to other mills. This machine has several unique features, including a patented notch and slot arrangement on the warp spool flanges, permitting continuous operation in making short warps of any desired number of ends per inch and total number of ends, with a minimum amount of waste.

A NEW multi-purpose slasher will produce a full width warp of any desired number of ends per inch and total number of ends, from a minimum quantity of yarn, and with a minimum amount of waste, time, and cost. It requires no warping or beaming in that yarn is supplied from individual cones, tubes, or cheeses, and a treated warp is delivered ready for the loom.

It will function equally well on cotton, synthetics, worsted, wool, and silk yarn, and combinations of these. It is a small versatile, self-contained unit. Power is supplied completely by electricity, and no steam connections are required for pilot-plant, sample, and experimental use.

Patented Feature. Yarn is processed through the slasher in the form of a narrow strand or ribbon, and the sized yarn is wound onto a beam which consists of a series of narrow spools or sections. The warp is contracted to the width between the spool flanges. When the desired amount of yarn is on the first spool the ribbon of yarn is transferred to the adjacent spool or section through a patented notch and slot arrangement, making the operation continuous until the beam is completed. A handwheel and gear train easily shifts the entire beam carriage to transfer from one spool to the next. A weighted tension roll automatically holds tension constant during the winding process.

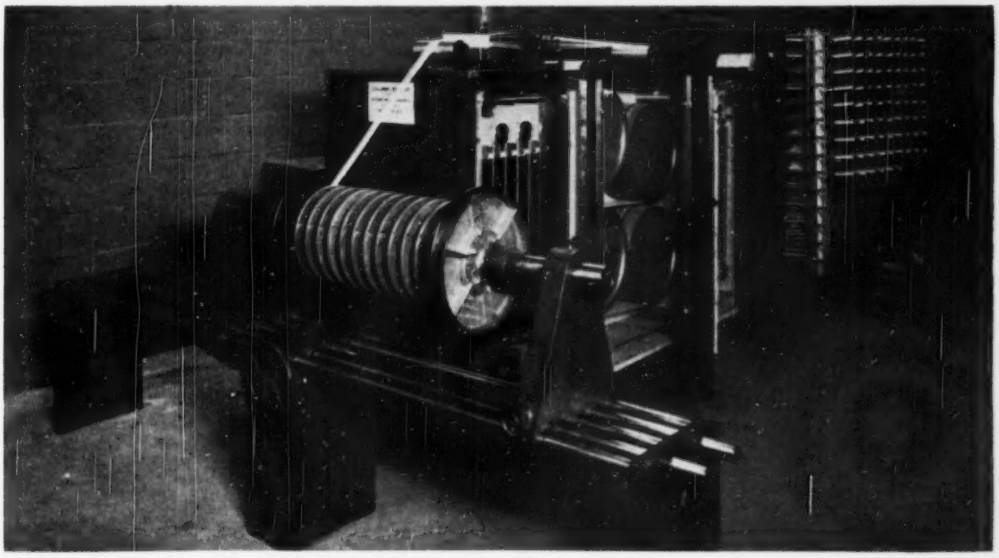
Samples and Experiments. This machine will make warps for head-end samples and "pattern blankets." In making a pattern warp, a small quantity of each of the desired colors and/or types of yarn is placed in the creel. Then the pattern is made up and laid in on the slasher and the warp made ready for the loom in one operation, thereby eliminating the usual preliminary processes of beaming and warping.

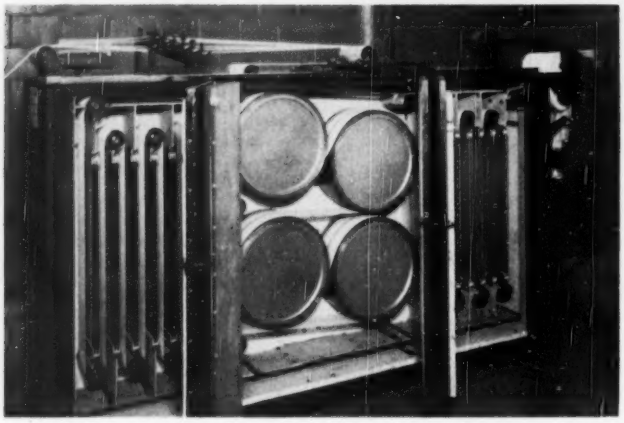
This slasher provides an accurate means of evaluating, on the same warp, the effects of hot air, surface contact, and infra-red drying. It incorporates all three forms of drying, each of which may be utilized separately or in combination with one or both of the others.

It provides a means for evaluating simultaneously different size formulas or warp treatments on one warp, on one loom. On a warp of 3000 ends, 1000 of them can be treated with compound No. 1, another 1000 ends with compound No. 2, and the other 1000 ends with compound No. 3, and weaving results can be tested without the variables involved when different looms are used or when the tests are run at different times.

Mills which make their own yarn may use this machine on short-run

Front of slasher showing flanged spool with patented notch and slot arrangement. The entire beam carriage can be shifted to transfer from one spool to another.





Showing drying media exposed for inspection. There are three separate drying compartments which contain different types of driers. The driers include hot air, radiant heat, and infra-red.

View of creel end. Note adjustable level size box and immersion roll which is exposed when size box is lowered. The stainless steel size vat rests in a stainless steel tank filled with glycerin which transmits heat to the size.

styles. A full width warp of the desired number of ends can be made with as little as 15 to 20 pounds of yarn.

Drying Features. The drying section contains provision for hot air, cylinder, and infra-red drying. One, two, or all three methods can be used. Two air and radiant sections are used with the cylinder section between them. The sequence of drying media can be selected as desired. For example, air-cylinder-radiant, cylinder-radiant-air, etc.

The infra-red radiants are glass plates with electrically conductive coating fused to one side of the glass. The glass radiants also act as vanes to guide the flow of air. Both sides of the yarn are exposed to the radiants to obtain uniform drying. The total heat capacity of all the radiants is approximately 9.6 kw and is divided into two sections of equal capacity. The radiants operate at relatively low temperature and will not burn the yarn.

The hot air section uses fin type electric heaters enclosed in a duct connected to the outlet of an adjustable speed centrifugal blower. Hot air is introduced at the center and bottom of the cylinder section from where it can be guided to any or all of the drying sections. Removable panels make it easy to direct the airflow.

Fin type booster heaters are also provided in the front and rear drying sections. The air type heater capacity totals 8.4 kw of which 2.4 kw are booster heaters equally divided in the front and rear sections.

Four 18" diameter, 8" face, copper cylinders make up the cylinder section. Each is equipped with two 1.5 kw strip heaters which are regulated by thermostats in each cylinder. Each cylinder is positively driven, and both sides of the yarn contact the cylinder surface for uniform drying.

The entire drying unit is enclosed in an asbestos type enclosure to prevent excessive heat loss. Side panels are hinged to provide access to all working parts. All shafts and guide rolls are mounted in sealed type ball bearings. Guide rolls and cylinders inside the enclosure are end mounted, leaving the other end open for ease in threading and other operations.

Size Box. The size box and rolls are mounted at the rear of the drying unit. Two 6" diameter, 8" face, rolls covered with synthetic rubber, mounted one over the other, serve as squeeze rolls. A 10-quart stainless steel vat rests in a stainless steel tank filled with glycerin and heated with two electric immersion type heaters controlled by a thermostat. The vat is easily removed to clean or change size formula. The entire tank and vat assembly can be raised and lowered in vertical guides by a hand crank. Counterweights make this an easy operation. The lifting mechanism also serves to regulate the depth of immersion. The immersion roll is stainless steel. The squeeze rolls are driven with adjustable pitch V-belt sheaves which can be adjusted while running to vary tension between the drying unit and squeeze rolls. A lever and weight arrangement permits adjustment of squeeze pressure.

Drive. An adjustable speed main drive regulates operating speeds from 0 to 40 yards per minute maximum. Roller chain sprockets transmit power from the main drive to driven parts of the machine.

The machine operates entirely on electricity, from 220 volt, 3-phase, 60 cycle power source. The multi-breaker type electric control panel, which distributes current to the various heaters, motors, etc., permits wide selection of operating conditions.

Creel. A creel is not included as standard equipment, but one can be supplied according to mill specifications. Maximum dimensions of the spools or discs which compose the warp beam are 14" diameter x 6" wide. The standard spool is 2" wide. Maximum length of spool, or sectional beam, is 44" over spool flanges. A wide loom beam is made by rebeaming from section beams.

West Point Foundry & Machine Co., West Point, Ga.

For additional data, request item B-101, using business reply card on page 214.

"Bantam" Bleaching Range for Smaller Plants

A recently developed miniature continuous bleaching range provides smaller mills with all the economies and advantages of continuous bleaching. In addition, it is suitable for specialty bleaching in larger plants.

An outstanding feature claimed for the range, designated the "Bantam," is the fact that the "J" Box, washers, squeezers, and saturators are all independent components and therefore can be set up by grouping around the central "J" box or in a straight line, whichever arrangement is most suitable for the individual bleachery requirements. This flexibility permits relocation of the range in the event of future plant expansion or rearrangement of layout.

Nested together, the range occupies only 16' x 20' floor space and is only 16½' high. Only 52' are required for a straight line installation.

The range can be furnished with features for either the Becco or DuPont process of continuous bleaching.

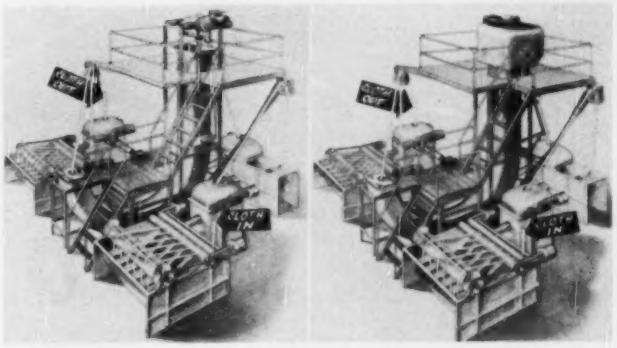
Flow of goods through the range is as follows:

The cloth first passes through a six-strand washer; then into the squeezer. The fabric next drops into a saturator at the entering end and is guided by the curved perforated throat sheet towards the delivery end. This throat sheet keeps the goods immersed in the solution, retains the accumulation of goods, and keeps the goods from tangling. From the saturator the cloth passes to the "J" box, a washer, and squeezer, completing the cycle.

Capacity of the range is up to 900 lb per hour, with adjustable speeds from 25 to 125 yards per minute.

Wiesner-Rapp Co., Inc., 1602 Seneca St., Buffalo, N. Y.

For additional data, request item B-127, using business reply card on page 214.



"Bantam" continuous bleaching ranges by Wiesner-Rapp. Left, range equipped with features for Becco process; right, DuPont process.

New Dyehouse Truck Keeps Workers' Feet Dry

A dyehouse truck incorporates patented construction features which "keep workers' feet dry."

Unique drainage funnels washing and dyeing liquids through a central outlet. Stainless steel solid sides prevent cloth from being frayed.

Top edges of the stainless tub are rolled for worker and cloth protection.

Made in sizes to suit a variety of washing, dyeing and liquid-handling operations, the truck is equipped with heavy duty roller bearing wheels and casters.

KIF Industrial Fabricators, North Haven, Conn.

For additional data, request item B-102, using business reply card on page 214.

Pin Tenter Overfeed Electronically Controlled

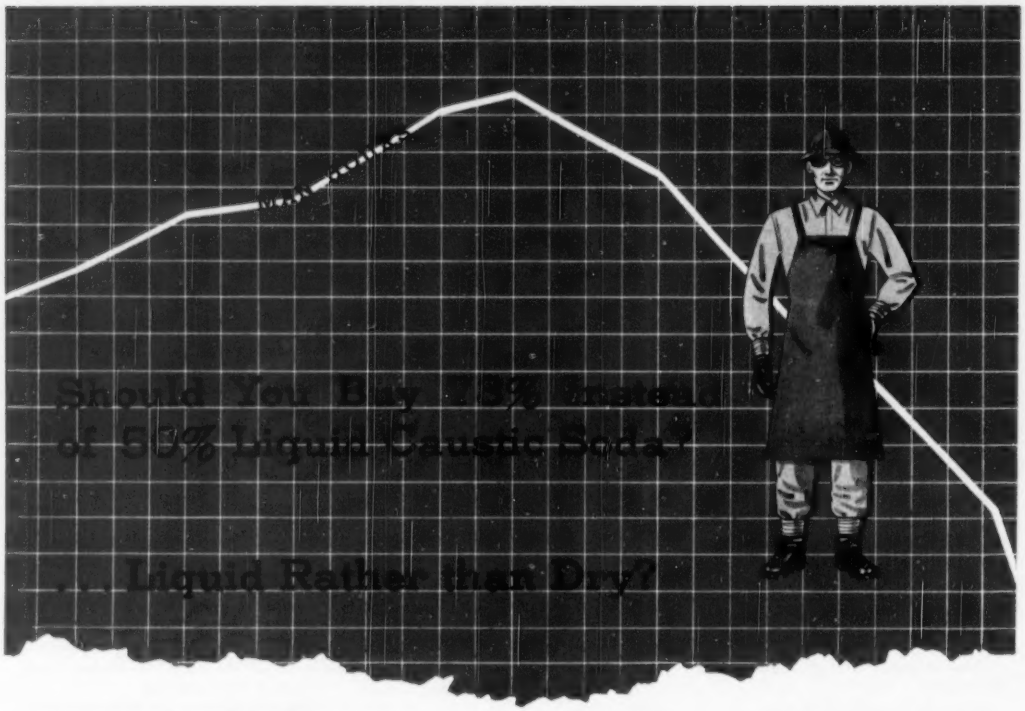
Pin tenter overfeeding under electronic control is the outstanding feature of the recently developed Ripple-Flo Tenter Range. Speeds up to 100 yards per minute with overfeed accurately controlled from 0 to 25% are said to be attainable with the machine. Selvage tolerance is 1/16-inch (plus or minus) on the pin line.

The handle of the fabric is greatly enhanced after processing on range, according to the manufacturer. It gives fabrics the optimum relaxed finish. The two-dimensional control is quite precise.

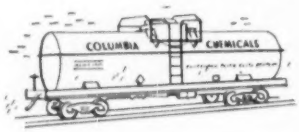
The rail guiders are actuated by a photoelectric beam on the selvage line. The edge of the cloth is scanned by a photoelectric device called a scanning head. The signal from this scanning head is amplified and actuates a sequence of electronic circuits which keeps the tenter pin line in register with the selvage.

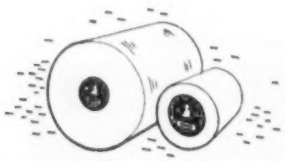
The overfeed system uses overdriven feed rolls ahead of the tenter brushes. The feed rolls are driven in conjunction with the tenter drive to give coordination at all speeds. A dial indicator calibrated in per cent of overfeed makes ac-

Ripple-Flo Tenter Range with electronic control (Butterworth).



COLUMBIA suggests—*a change may save you costly man hours*





A switch from 50% to 73% liquid caustic soda means 40% fewer cars to handle . . . the use of liquid rather than anhydrous caustic eliminates man hours required to unload, store, rehandle and dissolve. Today's competitive markets demand all possible manufacturing economies. That's why it may pay you to re-examine your methods and practices involving caustic soda.

The Columbia Caustic Soda Manual contains much data of value regarding the economics of the use of this chemical. Our Technical Service Department will be glad to supply any additional facts, without obligation, which you may need for analyzing your situation. Just write Pittsburgh Plate Glass Company, Columbia Chemical Division, Department CS-2, Fifth Avenue at Bellefield, Pittsburgh 13, Pennsylvania.

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PITTSBURGH PLATE GLASS COMPANY

curate setting a simple matter.

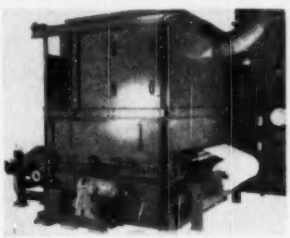
H. W. Butterworth & Sons Co., 2417 East York Street, Philadelphia 25, Pa.

For additional data, request item B-106, using business reply card on page 214.

High Speed Beamer Features Precision Control

A high speed beamer with totally enclosed mechanism features precision adjustment and control, including loading and unloading of the beam by a combination of mechanical and hydraulic power.

The two-speed 3 hp motor drives to a four-speed gear box and pro-



NYLON HEAT SETTING MACHINE UTILIZES HEATED AIR

Shown here is the new heat setting machine for woven nylon fabrics which was developed jointly by Martin Weiner Co. and Van Vlaanderen Machine Co. and briefly described on page 187 of the December 1949 issue of TEXTILE INDUSTRIES.

According to reports, the machine's novel feature of preheating the nylon fabric prior to setting tends to relieve strains on the cloth. Spoilage of fabric due to overheating is said to be impossible since no part of the machine is ever above the temperature of the thermostat.

The fabric is cooled gradually as it leaves the setting compartment by blasts of cool air and then a cold cylinder.

Van Vlaanderen Machine Co., 370 Straight St., Paterson, N. J.

For additional data, request item B-104, using business reply card on page 214.

and be sure of getting
DIXON QUALITY!

FAMOUS SINCE 1876

LUBRICATING SADDLES • ADJUSTABLE LEVERS • LEVER SCREWS • LOCKING STIRRUPS

SLIPWOOD BEARINGS • LUBRONZE BEARINGS
SLIXONICE SADDLES • SLIXONICE CAP BARS

(The new saddles and cap bars that never need lubrication)

For nearly three-quarters of a century the name Dixon has been synonymous with quality. Backed by a solid performance record, genuine Dixon saddles are in use everywhere in textiles!

Specify DIXON! Get DIXON Quality!

Such universal acceptance means that whatever your saddle requirements, Dixon can supply them. Hundreds of different types of saddles . . . stirrups . . . levers . . . lever screws . . . all of these plus specially engineered weighting assemblies are available at Dixon — saddle headquarters for the industry.

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Although most new machinery is delivered equipped with Dixon saddles, remember to specify Dixon — and be sure.

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Remember, Genuine Dixon Saddles Can Only Be Obtained Through Our Southern Representatives, New Machinery Manufacturers or From Our Main Plant In Bristol, R. I.

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J. W. Davis, Mfg'rs Agent, Box 745, Columbus, Ga.
Covering Georgia, Alabama, Mississippi, Louisiana, and Tennessee

DIXON
LUBRICATING SADDLE CO.
Established 1876
BRISTOL, RHODE ISLAND

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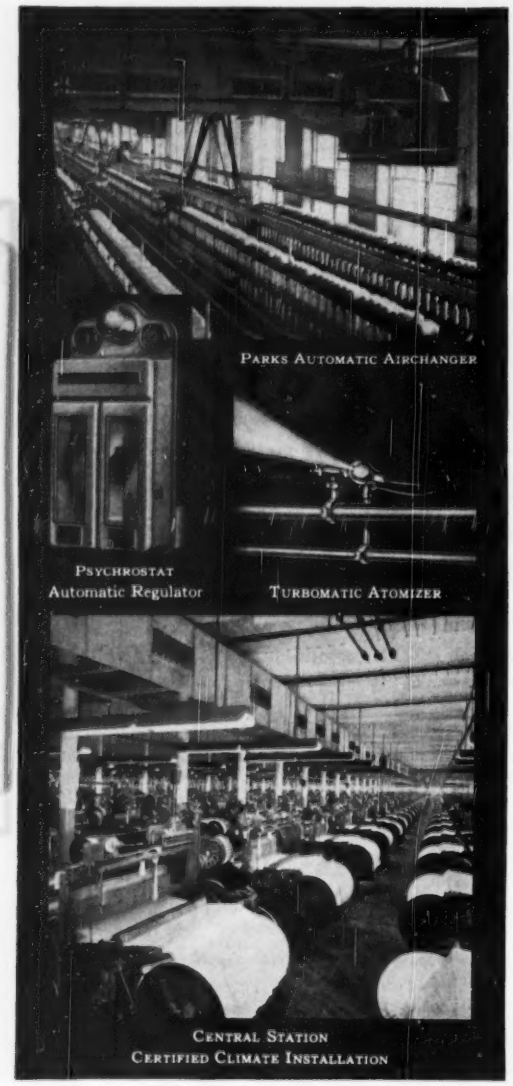
is better climate . . .

often pays for itself in a year



Parks-Cramer Company

Fitchburg, Mass. PARKS Certified Climate Charlotte, N.C.

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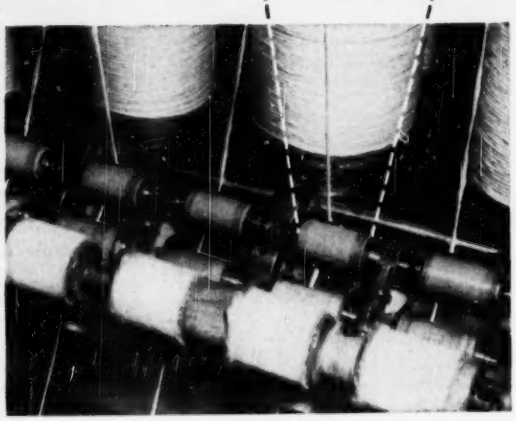
THE ADVANTAGES OF KENTEX APRONS



on YOUR OWN frames!

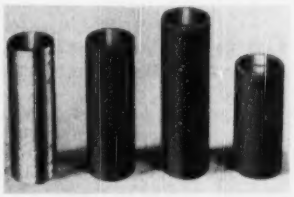
We want you to see for *yourself that* KENTEX precision built, michrometer gauged Aprons will actually fit better, wear longer on *your* frames . . . that they are free of dimensional or thickness variations; that their smooth leather surface keeps tension constant, and helps you spin even, strong yarn of the proper density.

Write us today for free samples and prices, giving us sizes and advising whether you wish open or closed type aprons.

TEXTILE APRON COMPANY

EAST POINT, GEORGIA

J. B. KENNINGTON, OWNER



HEADLESS PACKAGES FOR NYLON YARNS

The four take-up tubes shown here were designed to withstand the crushing action of nylon yarns. The tube at the left is of all-aluminum construction. The other three feature a combination aluminum and Bakelite construction. According to the manufacturer, the Bakelite furnishes a protective coating both for the aluminum and the yarn.

Bakelite-covered bobbins are held in place on the take-up mandrel by a spring attachment. The bobbin on the extreme right has an internal groove which engages a spring ball on this attachment to hold the bobbin firmly in place on the mandrel.

Surfaces of both all-aluminum or Bakelite-surfaced bobbins may be either roll ground or grooved around the bobbin to hold the yarn in place.

These bobbins are designed for steaming nylon or other yarns on the tubes.

Lestershire Spool and Mfg. Co., Johnson City, N. Y.

For additional data, request item B-103, using business reply card on page 214.

vides a range of eight winding speeds. Another feature is the concentration of the controls and indicators on a single convenient panel. The winding pressure (which is always indicated on the gauge), once adjusted, remains absolutely constant, according to the manufacturer.

A powerful braking mechanism is provided with sensitive electrical and mechanical actuating devices.

Harrison Knitting and Textile Machinery Co., Ltd., Upper Brook St., Manchester 13, England.

For additional data, request item B-107, using business reply card on page 214.

HOW TO GIVE YOUR FLOORS A FUTURE

(Above) Dark oil-soaked floor maintained by scrubbing. (Right) Similar area, same dirt conditions, but TENNANT dry-cleaned.

An example of results you can get with the

TENNANT *System* OF FLOOR MAINTENANCE

To be SURE of bright, easy-to-clean floors in your mill—both now and for *years* to come—no other maintenance method is more effective than the TENNANT SYSTEM.

It not only reconditions dark, spongy, water-softened floors . . . it restores original brilliance . . . hardens, seals and *protects* against dirt and traffic . . . cuts cleaning costs.

KEEPS FLOORS BRIGHT by fast mechanized dry cleaning. Eliminates scrubbing.

MAKES FLOORS EASY TO CLEAN. Dirt cannot readily adhere to smooth-sealed floors. Wipes off easily.

CUTS MAINTENANCE COSTS by saving manhours. Floors clean up like magic and stay clean much longer than when scrubbed. Floors stay dry, hard, lustrous; reduces slip hazards.

G. H. TENNANT CO.
2585 North Second Street
Minneapolis 11, Minn.

Write today!
Get typical case histories, photos, and NEW bulletin "How to Get Better Results In Textile Floor Maintenance."

OFFICES IN PRINCIPAL CITIES

Dynel Staple Fiber Has Many Advantages

Dynel is the new generic name chosen for a new acrylonitrile-vinyl chloride staple fiber to distinguish it from the older "Vinyon" yarns developed by Carbide and Carbon Chemicals Corp.

Dynel is expected to become a fiber of major importance, according to the manufacturer. Among the many advantages cited for it are high resilience, "loft," warmth, strength, fire resistance, moth-proofness, and fungus inertness. In addition the fiber possesses dimensional stability and dries rapidly. It can be dyed readily on conventional machinery and is expected to sell at a moderate price. Dynel can be handled easily on the cotton, wool, worsted, and spun silk systems.

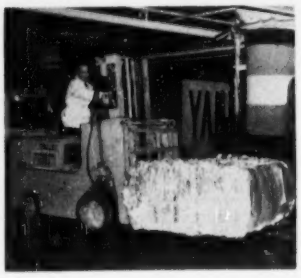
Carbide and Carbon Chemicals Corp., 30 East 42nd St., New York 17, N. Y.

For additional data, request item B-128, using business reply card on page 214.

Lift Truck Accessories for Bale Handling

Two recently developed accessories for the Lift King line of lift trucks (described on page 96 of the October 1949 issue of TEXTILE INDUSTRIES) are adaptable to bale handling.

One of these is a hydraulically operated side clamp which may be lowered down over a bale to grip it between ends. The other attachment comprises polished (chisel-point) forks which slip between the bale



and floor (as shown in the accompanying photo) or between bales in a stack. This attachment has a pusher framework which can thrust forward to shove the bale off the forks.

Yale & Towne Mfg. Co., Philadelphia Div., Philadelphia, Pa.

For additional data, request item B-129, using business reply card on page 214.

Improved Top Roll Design

An improved top roll design for roving or spinning is reported to make possible the use of the same arbor assembly for either a leather or synthetic cot-covered shell or using it in the front, middle, or back line of rolls. Internal design changes have made for longer periods between servicing and more uniform running, it is claimed.

Development of the roll is the result of the joint efforts of engineers of The Torrington Co. and Saco-Lowell Shops.

Since all arbor assemblies are alike and all parts made to extremely close tolerances, the shells are readily interchangeable, and there is no need for keeping parts in any particular order or assembly. This also

REDUCE "ENDS-DOWN"—CUT COSTS

WITH

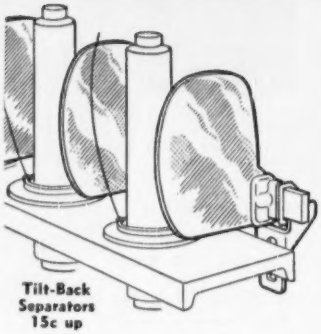
WHITEHEAD

Permalite

ALUMINUM ALLOY SEPARATOR SHIELDS

Why burden your frames—and your overhead—with heavy, old-fashioned iron separator shields? Whitehead Permalite Shields are made of a special aluminum alloy—strong as steel but many times lighter. They mount right on the ring rail and can be flipped back for doffing . . . And with all their superiority, they cost no more!

EASY TO INSTALL Simply drill and tap ring rail. We supply the shields and bar drilled to your gauge and ring count, together with proper support hangers and all screws and washers.



Tilt-Back Separators 15c up

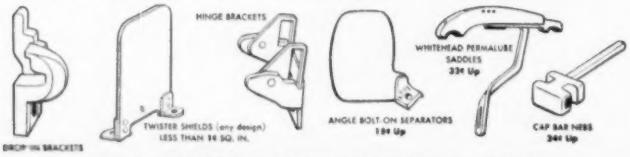
Stainless Steel Available for Rayon Spinning

EACH JOB ENGINEERED When ordering specify rail width, thickness of back flange, gauge and number of rings in each rail on one side only, as 24-22-22-22-24.

ONLY WHITEHEAD PERMALITE SHIELDS OFFER THESE ADVANTAGES

- Fewer ends down: some mills report 27% less
- Use of lighter travelers which reduce power costs, wear of rings and travelers
- Solid polished blades (not slotted) which cause less wear on yarn, collect less lint and fly, resulting in smoother yarn
- Less vibration, wear of cams, worm gears and lifter-rod bearings
- Reduction of live weight—from as much as 300 lbs in old slotted steel shield assemblies to as little as 35 lbs per frame
- No attention after installation

OVER 4,000,000 IN USE BY MORE THAN 350 AMERICAN MILLS


HINGE BRACKETS
TWISTER SHIELDS (any design) LESS THAN 14 SQ. IN.
WHITEHEAD PERMALUBE SADDLES 33¢ Up
ANGLE BOLT ON SEPARATORS 10¢ Up
CAP BAR NIBS 24¢ Up

IMMEDIATE DELIVERY FROM STOCK ON ALL ITEMS

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North Carolina
Walter Coleman, Box 722, Salisbury, N. C.
Tennessee
Ed F. Brown, 417 Dale Ave., Knoxville, Tenn.
Northern Representative
Matthews Equipment Co., 93A Broadway, Providence, R. I.

provides for freedom and flexibility in positioning the rolls in any line of the frame.

Saco-Lowell Shops, 60 Batterymarch St., Boston 10, Mass.

For additional data, request item B-130, using business reply card on page 214.

Licker-in Bearing Requires Little Attention

Lickers-in on existing cards can now be equipped with the same type of Hyatt roller bearings as those used as standard equipment on new Saco-Lowell cards. In the majority of cases, however, it is necessary to supply new shafts to the lickers-in and to furnish new shrouds and boxes as well as the roller bearings.

According to reports, the bearings will operate for a long time with practically no attention except occasional lubrication and cleaning.

Saco-Lowell Shops, 60 Batterymarch St., Boston 10, Mass.

For additional data, request item B-131, using business reply card on page 214.

New Line of Italian-Made Worsted Machinery Available

Worsted processing machinery as manufactured by Officine Meccaniche Cigardi S. A. of Milano, Italy, has recently been made available in the United States. The complete line is comprised of the following: mixing machines, intersecting gill boxes, porcupine drawing frames, spinning frames, and twisters.

The construction of the mixing machines is simple but sturdy. All moving parts run on ball bearings. All machines are noted for quality of product and high production, ease of operation, according to the manufacturer.

Porcupine drawing frames are built with 15-25 heads, each two bobbins. Production, 28-33 yards per minute. Most of the parts are interchangeable with those of the gill box.

Intersecting gillboxes are built with two to five heads, either with delivery from cans or bobbins, two bobbins to each head; speed, 600-650 faller drops per minute; sliver production, about 28-33 yards per minute. Each head has a set of 39 fallers studded with wire pins of finest gauge. Each machine is equipped with

ACCURATE PIPE CUTS
Quick and Easy

"Anybody does better work with better tools—If they come any better than RIDGID I've never seen 'em."
RIDGID
No. 2 HEAVY DUTY
1/8 TO 2

RIDGID Cutters roll right through all kinds of pipe and conduit

● It's really a cinch to cut pipe extra fast with the popular efficiency-balanced RIDGID cutter. Thin heat-treated tool-steel blade leaves practically no burr. Every cutter factory-tested to make sure it tracks perfectly. Your choice of five sizes to 6" pipe; four-wheel cutters to 4." Choose the favorite of men who know fine tools—buy RIDGID cutters at your Supply House.

RIDGID
WORK-SAVER PIPE TOOLS
THE RIDGE TOOL CO. • ELYRIA, OHIO

yardage clock.

Spinning frames are built with 300 spindles, 3.6" gauge, for warp; or with 400 spindles, 3" gauge, for filling yarn. Independent drive is provided on each side. Each spindle has automatic stop motions.

Rostan Machinery and Equipment Co., 75 West St., New York 6, N. Y.

For additional data, request item B-132, using business reply card on page 214.

New Tension Pulley for Spinning Frames

The Saco-Lowell Constant Tape Tension Assembly has recently been improved with the development of a new type of constant tension hanger which has several new and interesting features of design and construction. These changes in design and construction not only increase the overall efficiency of the tension pulley, but make it possible to use the same hanger for either a right or left-hand spindle rotation, according to the manufacturer.

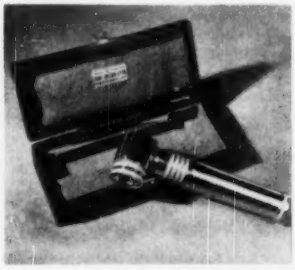
Saco-Lowell Shops, 60 Batterymarch St., Boston 10, Mass.

For additional data, request item B-133, using business reply card on page 214.

Electric Magnifying Lens

An English-made electric magnifying lens, designated the Ultra Lens, is designed especially for the inspection of raw materials and fabrics, etc.

No time is required for focusing. The instrument is placed on the article to be examined, the switch is snapped and a powerful magnification in a brilliantly lighted field is obtained.



The Ultra Lens (Montgomery).

Montgomery & Co., 53 Park Place, New York, N. Y. (B-112).

"Slashers and Slashing" Subject of New Book

The Fiber Publishing Co., 42 Greylock Road, Newtonville, Mass., has published a book entitled *Slashers and Slashing*, which was written by A. E. Silcox in collaboration with A. L. Landau (price $1.50).

The book is a detailed description of the slasher, together with sizing and sizing systems. Also incorporated in the book is a review of multi-motor drives, instrumentation, homogenization, and a discussion of hot air slashing.

Standardized Control Centers

New standardized control centers containing motor starter units for the centralized control of groups of machines, feature plug-in type discon-

ONE OF THE SOUTH'S largest varieties of steel products is within reach of your telephone or over-night mail . . . ready for rapid delivery right to your door.

• *Dixisteel hot rolled bars, strip, angles and equal leg tees, plain or hot-dip galvanized* • *New billet reinforcing bars* • *Cold drawn screw stock (suitable for shafting)* • *Structural angles and channels* • *Hot rolled plates and sheets* • *Galvanized sheets and roofing* • *Union drawn cold finished rounds and squares* • *Republic "Enduro" stainless steels* • *Berger metal lath, galvanized and stainless downspouts, gutter and accessories* • *Rigidized metals* • *Truscon welded wire mesh* • *Chase copper cold rolled sheets and strips.*

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ALGOSOLS

water soluble vat dyestuffs

new method for application of vat dyes

the same brilliant shades as the vat dyestuffs from which they are derived.

all the fastness properties of regular vats.

vat fastness on mercerized cotton piece goods and cotton yarn . . . rayon skein and piece goods . . . dress goods of spun rayon and wool blends . . . wool suitings, blankets and knitting yarns . . . hosiery of wool and blends of rayon, cotton and nylon . . . printing by roller, screen and resist.

simplicity of application, superior dyeing and printing results, saving of time, lower cost of chemicals offset dye cost over ordinary vats in light and medium shades.

stocks carried in strategically located warehouses throughout the country insure prompt deliveries.

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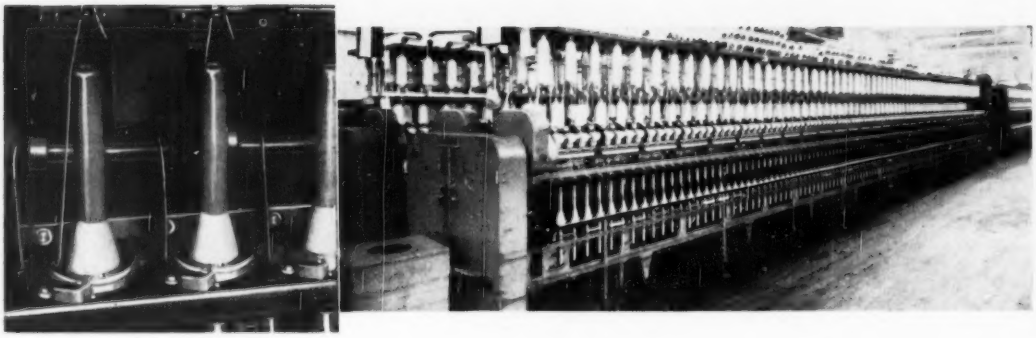
Only HERR *makes the* "CONICAL RING"

and Spun Fibers, Inc. says they are "Most Satisfactory"



"After trying other types of rings, we have found Herr *Conical* Rings most satisfactory on worsted yarns. All of our new worsted frames were ordered equipped with Herr Conical Rings."

EUGENE H. TIMANUS, *Manager*
Spun Fibers, Inc., Whitnel, N. C.

Some of the features that have endeared Herr *Conical* Rings to an increasing number of efficiently-operated mills . . . the *conical* shape produces an outward and downward action with the traveler riding on the top and side face of the ring . . . accommodates any spinning and twisting rail condition . . . helps reduce yarn breakage and increase production of higher quality yarn with reduced waste . . . provides absolute control of the flow of oil to the traveler, resulting in cleaner fabric, low oil consumption, longer traveler life.

Herr Conical Rings are in use in many plants throughout the textile world in conjunction with the spinning and twisting of worsted, woolen, rayon, blended yarns and *NYLON*.

May we have one of our representatives call and discuss your ring problems with you.

HERR MANUFACTURING CO., Inc.

318 FRANKLIN STREET • BUFFALO, NEW YORK

nects on the line side. All starter units are 20 inches wide by 20 inches deep, with heights in multiples of 14 inches for interchangeability in standard indoor structures, either 76 or 90¾ inches high. Starter units can be mounted back-to-back in these same structures for the most efficient utilization of available space.

Westinghouse Electric Corp., Box 868, Pittsburgh 30, Pa. (B-114).

Self-Locking Set Screw

A self-locking set screw and adjusting screw called Zip-Grip is designed for applications in which excessive vibration is a factor, and for regulating and adjustment applications in which instantaneous locking at a precise point is desired.

Set Screw & Mfg. Co., 442 Main St., Bartlett, Ill. (B-116).

Splash-Proof Motor Mounts in Any Position

A motor, designed for locations which are subject to direct streams of water or other liquids, may be mounted in any position and keep its splash-proof features.

The end bells permit free passage of ventilating air through integrally-cast baffles, preventing splashing liquids reaching the interior of the motor. The air is drawn through the rear of the motor and exhausted through the shaft end, thereby blowing away foreign materials, water and liquids from not only the motor but also the assembly it is driving. All bearings are lubricated for the life of the motor.

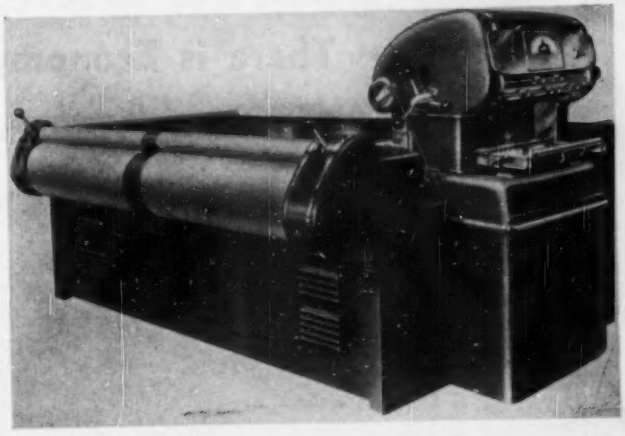
Sterling Electric Motors, Inc., Los Angeles 2, Calif. (B-117).

New Hydraulic Control for Reeves Motodrive

A hydraulic control has been developed for use on the Reeves Vari-Speed Motodrive to provide a sensitive and accurate means of obtaining automatic speed changing.

With this control on the Motodrive, it is possible automatically to control tension, velocity, pressure, temperature, liquid level of materials in process and to synchronize the operating speeds of machines in the production line or of parts of the same machine, according to the manufacturer.

The actuating force is secured by connecting the control valve lever to any speed indicating mechanism on the driven machine.



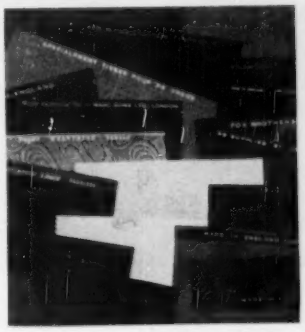
SELVAGE MARKING MACHINE USES DRY PIGMENTS

This machine for the continuous and rapid application of selvage marking on all kinds of fabrics is manufactured by Milford-Astor, Ltd., of Salford, Manchester, England, and has recently been made available in this country through Milfa-Graph, Inc., an associate of the English firm and the Kaumagraph Co. of Wilmington, Del.

Any words, trade mark or design, in one or several colors, can be imprinted on fabric selvages. Markings are sharp and clean, brilliant and durable.

Color medium is a plastic pigment, making a print which dries instantaneously. As a result, cloth may be rolled or folded immediately after printing.

Production capacity: light fabrics, up to 60 yards per minute; heavy fabrics, up to 30 yards per minute.



Samples of wool fabrics, selvages of which have been marked with the high speed machine shown above.

Milfa-Graph, Inc., Wilmington, Del.

For additional data, request item B-134, using business reply card on page 214.

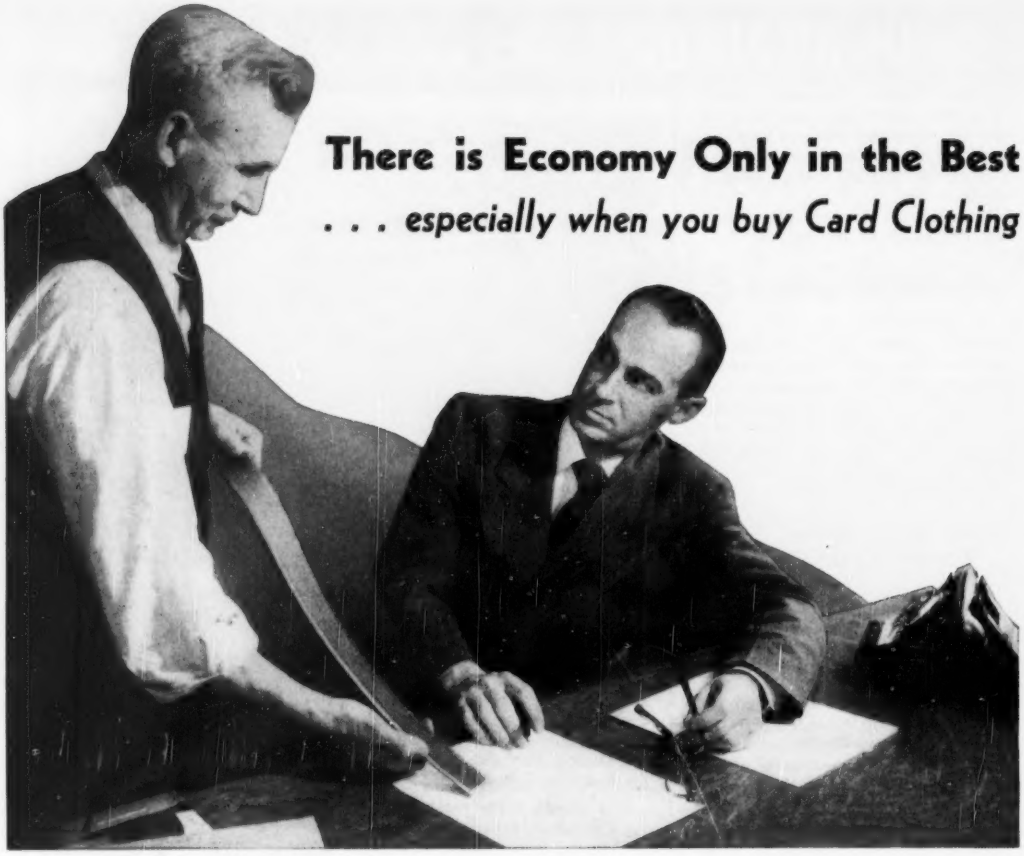
The same control without the hydraulic power plant is available for pneumatic operation.

Reeves Pulley Co., Columbus, Indiana (B-120).

Direct Reading Color Temperature Meter

The Spectra Direct Reading Color Temperature Meter measures the exact color of a source of illumination. It operates photoelectrically and is therefore independent of individual eyesight and personal judgment.

First, the instrument is pointed at the light source to be measured. It measures the red content of the light. A ring is then adjusted so as to bring the needle on the scale to a red mark. This adjusts the red reading to a standard value. Then the trigger on the Spectra is pulled. This moves the red filter out of the way and swings a blue filter in front of the light sensitive cell. With



There is Economy Only in the Best

. . . especially when you buy Card Clothing

Overseer... Nothing is so important to me, Mr. Jones, as having the very best card clothing on our machines. I'll grant you have a large investment in floor space and cards . . . *but the actual work is done by the card clothing.* We must have the best!

Mr. Jones... That's right, Sam—and the difference in cost between the best and second best card clothing is very small compared to our total outlay.

Overseer... And using the best makes a whale of a difference in operating efficiency and return on your total investment. That's why I'm for TUFFER CARD CLOTHING every time. It's the most uniform and most accurate card clothing we can use . . . and it keeps carding costs down where they should be!

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-2

TUFFER CARD CLOTHING

IMPROVES PRODUCTION ALL ALONG THE LINE

the trigger held back, the needle then indicates on the scale the exact color temperature of the light source.

An important feature claimed for the instrument is the Spectrasphere, a diffusing hemisphere which is placed over the instrument when light of mixed character is to be measured. The Spectrasphere mixes and averages up the various light sources, and provides a figure which is the best guide to the most favorable results.

Photo Research Corp., 127-129 W. *Alameda Ave., Burbank, Calif.* (B-111).

The Story of Rayon

A recently published book entitled *Rayon—The First Man-Made Fibre* by Joseph Leeming of American Viscose Corp., brings together in one volume information that has been widely scattered in technical literature. (Chemical Publishing Co., Inc., 26 Court St., Brooklyn 2, N. Y. $5.75.)

The story of the research that led to the discovery of rayon is told in the book. Also described are the methods by which rayon is manufactured and its influence on fabrics which have been previously made only with natural fibers.

Sound-Proof Booth for Intercom Stations

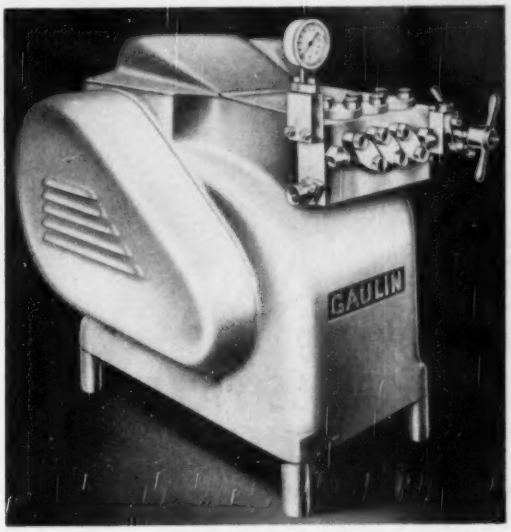
Sound-Proof Booth, Model M-15 is said to be a desirable accessory in any intercommunication system where master or staff stations are located in high noise level areas. By placing the intercom station in the sound booth, a high percentage of the background shop noises are effectively absorbed, and not transmitted to the station in the quiet area. Thus, two-way conversation between a quiet location and a noisy location can be carried on clearly and intelligibly.

Executone, Inc., 415 *Lexington Ave., New York* 17, *N. Y.* (B-118).

Synthrez C Enhances Body of Fabrics

Large scale production of Synthrez C, a highly polymerized, water soluble, modified urea-formaldehyde resin, has been announced. It is a clear, colorless syrup, readily soluble

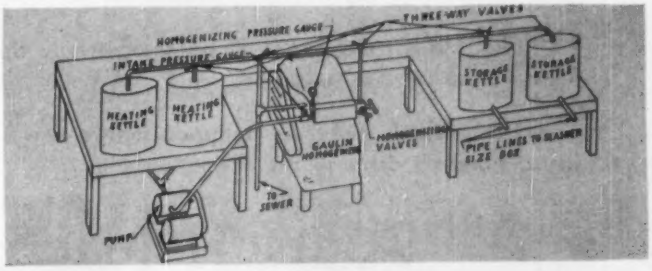
GAULIN
SIZE HOMOGENIZERS GIVE YOU
5 Cost-Cutting Advantages



1. Reduce the amount of starch and softeners required.
2. Eliminate cooking time, reduce steam costs by as much as 50%.
3. Permit higher slasher feeds; increase loom efficiency.
4. Reduce shedding in slashers and looms...often by over 50%.
5. Provide more uniform size and better penetration of the yarn.

It will pay you to investigate Gaulin Homogenizers for size preparation. They can be installed easily without major changes in mill layout. Write for catalog giving full details.

A TYPICAL TEXTILE LAYOUT

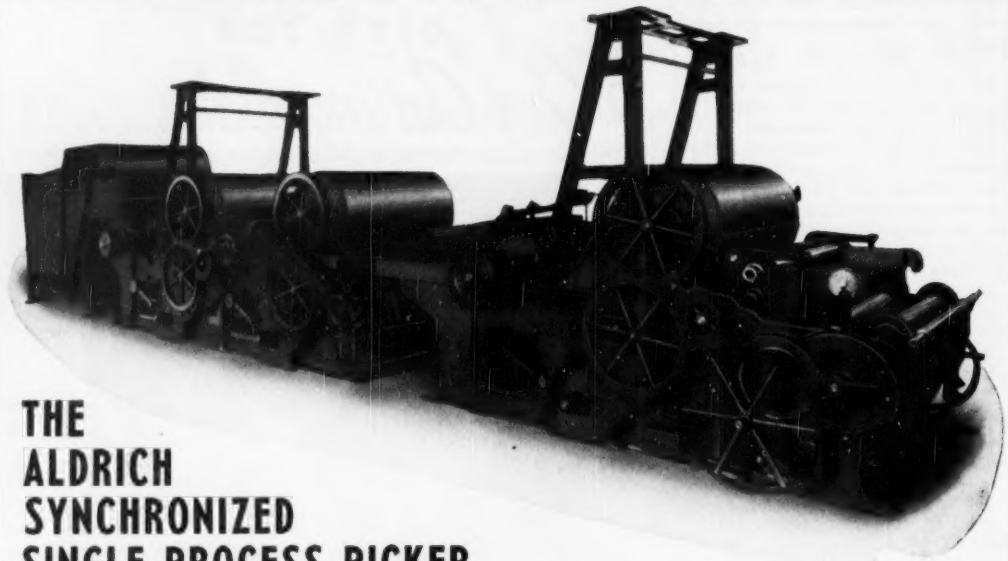


Gaulin TRADE MARK

MANTON GAULIN MANUFACTURING CO., INC.
51 GARDEN STREET, EVERETT 49, MASSACHUSETTS
SOUTHERN REPRESENTATIVE 107 ATWOOD ST., GREENVILLE, S. C.

SEE US AT THE TEXTILE SHOW—BOOTHS 6 & 7—ON THE STAGE

FOR MAKING EVENER CARD SLIVER



THE ALDRICH SYNCHRONIZED SINGLE PROCESS PICKER

A true single-process picker, in which the finisher section is fed with a smooth, well-formed lap from the breaker section, instead of with loose cotton from a gauge box or hopper feeder. The Aldrich Synchronizer controls the feed from the breaker section to deliver the lap exactly as required by the finisher.

This makes a lap which is not only quite even yard by yard, but unusually even in every direction throughout the lap. Such a lap will make a very even card sliver.

The feeder on the Aldrich picker is equipped throughout with permanently lubricated ball bearings, which never require attention.

The Aldrich picker has all possible parts in the evener mounted on ball bearings for extreme sensitivity.

The Aldrich picker is equipped with a new and improved, completely silent, sideshaft drive to the evener.

AldricH MachinE

Greenwood WorkS South Carolina

in water, and stable for several months storage under favorable conditions, according to the manufacturer.

Synthrez C is used in the production of durable finishes to enhance the body or fullness of rayon, cotton and nylon fabrics and wool-rayon blends. Any degree of crispness or fullness can be obtained by the proper formulation, it is claimed.

Synthron, Inc., Ashton, R. I. (B-108).

Motorless Industrial Floor Sweeping Machine

The "Plantman" is a motorless floor sweeping machine operation of which is said to be five times faster than sweeping floors by the hand broom method.

The sweeping width of 20 inches or 28 inches is well-covered, it is claimed. All sweepings are whisked away in one operation into a detachable aluminum hopper for easy disposal. For maximum efficiency, operation of the sweeper at walking speed is recommended.

The Plantman floorsweeper (Handling Devices)

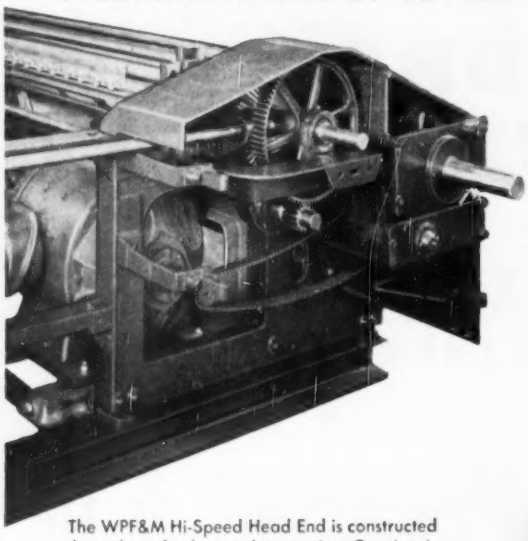
Weight of machine is 48 pounds. Its six brushes are made of different thicknesses of fibers with the result that they can be adjusted to compensate for 1½ inches of wear before new bristles must be installed.

Handling Devices Co., Inc., 581 Boylston St., Boston 16, Mass. (B-113).

80 YEARS
SUPPLYING
PINS & LAGS
and still leading!
WATCH FOR
OUR NEWS
OF A...
DRASTIC
INNOVATION
IN THE
TEXTILE INDUSTRY
IN THE NEAR FUTURE
•
WILLIAM CRABB & CO.
301 THIRD AVENUE,
NEWARK 7, N. J.

A HI-SPEED HEAD END WITH A MIND OF ITS OWN

MULTI-MOTOR DRIVE AND ACCURATE CONTROL HOLD PRE-SET YARN TENSION CONSTANT AT OPERATING SPEEDS UP TO 100 YARDS PER MINUTE



The WPF&M Hi-Speed Head End is constructed throughout for heavy duty service. Gearing is simplified and eliminates frictional losses of old style clutches and speed cone drives. Drive and motors are completely covered, fully protected from lint and dirt.

Here's a Head End, equipped with Multi-Motor Drive, that accurately controls yarn stretch and tension at running speeds ranging from 20 to 100 yards per minute; a creep speed of four to six yards per minute.

In place of old style friction, an individual motor winds the beam. Individually driven slasher rolls are synchronized by the Drive and controlled by a rheostat.

Indicating meters can be quickly and accurately pre-set to any desired yarn tension. Once set, tension remains constant—all beams are wound uniformly tight—from start to finish. After proper tension has been determined for a particular grade yarn, it can be duplicated at any time by merely setting the rheostat.

Elimination of costly guesswork adjustments means a better quality finished product . . . increased loom efficiency.

We will be glad to send you detailed information of this Head End's many other advantages . . . or make a survey in your slasher room if you desire.

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA

NOISE ABATEMENT DEVICE REDUCES ERRORS

The "Acousti-Booth" is a device that traps noise and permits normal telephone conversations regardless of outside interference. It is lined with sound absorbing material between two dissimilar perforated panels, the inner to trap high frequency sounds and the outer to capture sounds of low frequency.

Burgess-Manning Co., Libertyville, Ill. (B-121).

Water-tight Construction in Dry Chemical Extinguisher

An improved model dry chemical fire extinguisher, said to be completely water-tight, has been introduced. Designated the Model B extinguisher, it is more rugged, more dependable and easier to maintain than its predecessor, the Model A extinguisher, according to the manufacturer.

Specially designed seals inside the nozzle and receiver have made these two parts water-tight.

The extinguisher is available in 20 and 30 lb sizes.

Ansul Chemical Co., Marinette, Wis. (B-123).

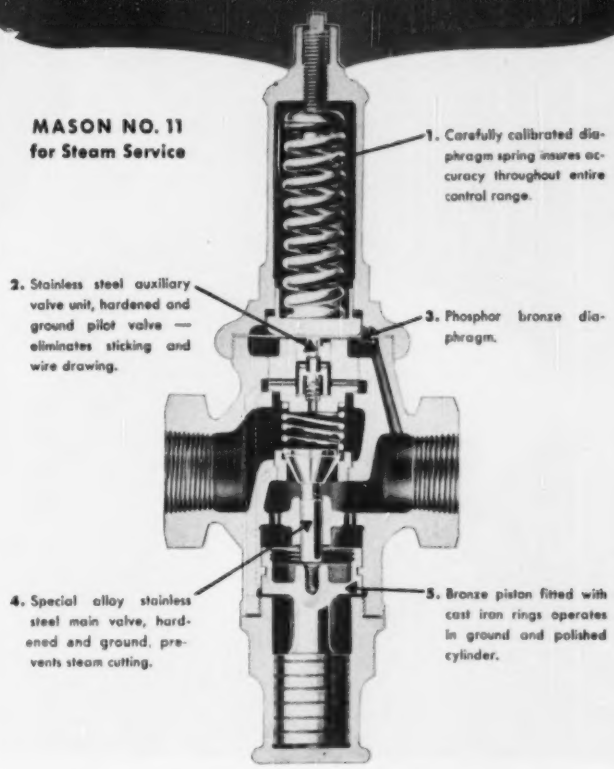
Corrosion Resistant Linings for Chemical Storage Tanks

A method of applying corrosion resistant linings of polyethylene to metal tanks and drums for storage of chemicals has been developed.

Polyethylene powder is sprayed through a flame spray pistol. Properly applied, the polyethylene coat-

5 Quality Features

THAT ASSURE LOW COST PRESSURE REDUCING SERVICE


MASON NO. 11
for Steam Service
1. Carefully calibrated diaphragm spring insures accuracy throughout entire control range.
2. Stainless steel auxiliary valve unit, hardened and ground pilot valve — eliminates sticking and wire drawing.
3. Phosphor bronze diaphragm.
4. Special alloy stainless steel main valve, hardened and ground, prevents steam cutting.
5. Bronze piston fitted with cast iron rings operates in ground and polished cylinder.

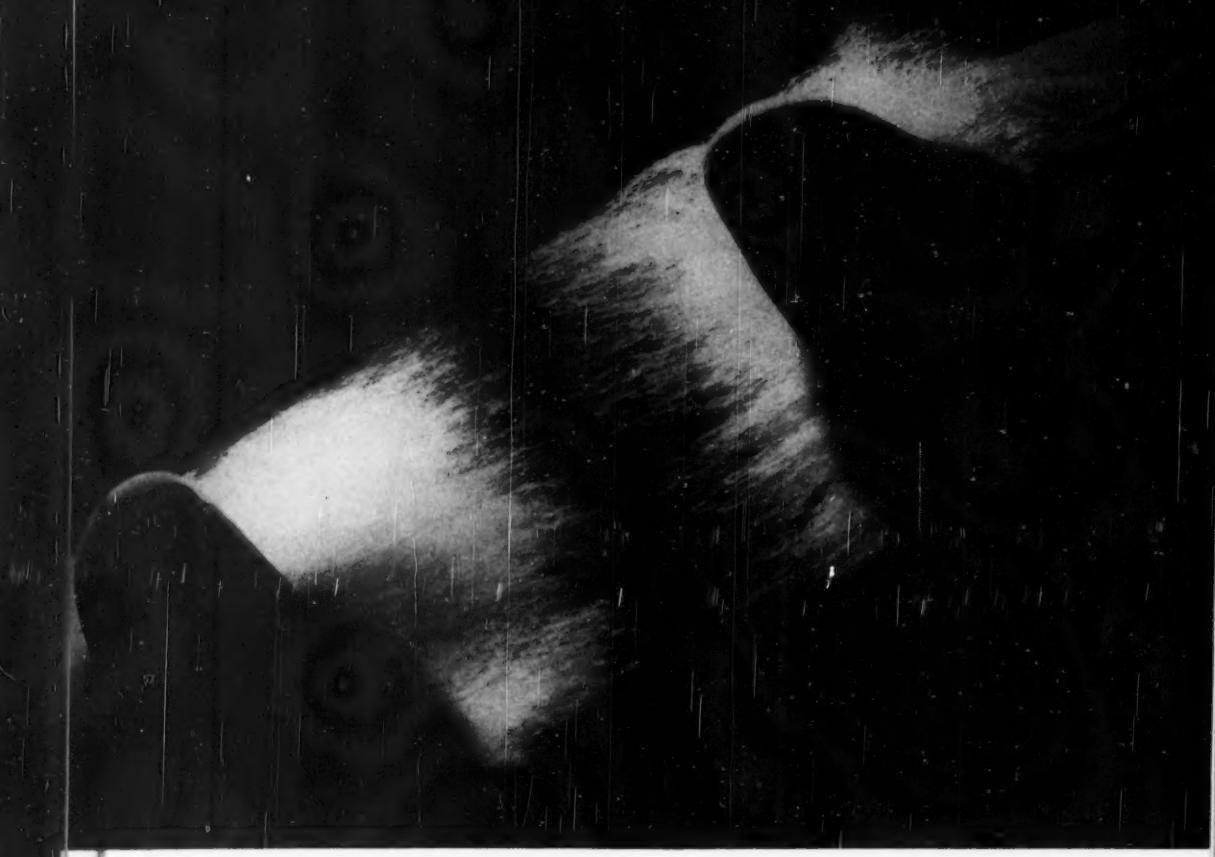
The No. 11 Mason Reducing Valve assures precise pressure control in all types of applications. Pilot operation assures fast, accurate response to controlled pressure variations. Initial pressure ranges up to 250 lbs. reduced to any desired pressure between 5 and 75 lbs. or 75 and 225 lbs. Bronze bodies, screwed connections in sizes ½" to 2". Iron bodies, 250 lb. flanges in sizes 2½" to 4". Maximum working pressure 250 lbs. @ 450° F.

Your local Mason-Neilan industrial distributor is ready to serve you from his stock

MASON-NEILAN REGULATOR COMPANY
1194 ADAMS ST., BOSTON 24, MASS., U.S.A.

Sales Offices or Distributors in the Following Cities: New York • Buffalo • Chicago St. Louis • Philadelphia • Houston • Pittsburgh • Cleveland • Tulsa Atlanta • Denver • Cincinnati • Los Angeles • San Francisco
Mason-Neilan Regulator Co., Ltd., Montreal and Toronto

There is only one TECA* fiber



*TECA is an Eastman trade mark. It identifies a short, crimped fiber made by Eastman from cellulose acetate—a fiber otherwise known as estron or acetate rayon staple.

Teca fiber has a long-sought combination of qualities never before available in any single textile fiber, natural or man-made. By mixing it with other fibers—such as viscose rayon, cotton, or wool—textile designers have created a basically new group of fabrics—the well-known "Teca blends," now in millions of men's and women's suits, slacks, sports shirts, and dresses.

A high Teca fiber content makes for dimensional stability in a fabric. It is one of the best means of achieving lasting wrinkle resistance . . . one of the surest aids in helping a garment hold its press. Pleasant feel, extraordinary soil resistance, inherent washability, quick drying, are other Teca advantages.

No wonder Teca is being featured more and more in retail store advertising . . . no wonder consumers want to be told of Teca-content. Remember there is only one Teca fiber, and Teca is a selling plus. Specify it. Advertise it.

TENNESSEE EASTMAN CORPORATION

(Subsidiary of Eastman Kodak Company)

KINGSPORT, TENNESSEE

ing will be fully resistant to attack of almost all chemicals at temperatures as high as 180 F, it is claimed.

Schori Process Division, Ferro-Co Corp., 8-11 Forty-Third Rd., Long Island City 1, N. Y. (B-124).

Non-Corrosive Utility Pump

A utility pump fabricated of the corrosion resistant alloy, Illium, has many industrial applications.

Features claimed for the pump are: light weight; compact construction; heavy duty roller bearings and over-size shaft; semi-open, non-clog type impeller is precision balanced to permit speeds of 3600 rpm; unit may be easily disassembled and assembled for cleaning or repacking; extended shaft is adaptable to any type of driving unit.

Varied types of packing are available.

Burgess-Parr Co., Freeport, Ill. (B-125).

1949 ASTM Standards on Textile Materials

The October, 1949, edition of ASTM Standards on Textile Materials includes in their latest form 84 specifications, test methods, and tolerances developed by Committee D-13. Also included are a psychrometric table for relative humidity, photomicrographs of common textile fibers and of defects in woven fabrics, a convenient yarn number conversion table, a glossary of textile terms, and terms relating to hand of fabrics.

Copies of this 586-page book, heavy paper cover, can be obtained from American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pa., at $4.50 each.

Fifth Edition of Riegel's "Industrial Chemistry"

Rienhold Publishing Corp., 330 W. 42nd St., New York, N. Y., recently announced the availability of the fifth edition of *Industrial Chemistry* by E. Raymond Riegel, professor of industrial chemistry, University of Buffalo ($7.00).

Two-Stage Deaerating Heater

A new deaerating heater design is reported to reduce the oxygen content of boiler feedwater to less than 0.005 ml per liter regardless of rapid load variations or unusual operating conditions. Carbon dioxide is also completely removed, it is claimed.

These two-stage deaerating heaters are available in all sizes up to 2,000,000 lb per hour, and the second stage of each heater is tailor-made for individual plant conditions and for the desired storage capacity.

Graver Water Conditioning Co., 216 West 14th St., New York 11, N. Y. (B-126).

BOBBIN CHOKE REMOVER

This device has been designed to eliminate the task that has accompanied the removal of fly, lint, and litter from bobbins. It produces a cleaner bobbin and with exceptional speed (just as fast as an operator can handle bobbins).

This device is furnished in two types: Model A has a concaved head to accommodate bobbins where the outside diameter is not larger than ⅞"; Model B has a convex head for larger bobbins

The principle of this choke remover is that when the bobbin is placed in head and then depressed, a gust of air emerges from hole in orifice, blowing all trash from bobbin.

M-B Products, 130-134 E. Larned St., Detroit 26, Mich.

For additional data, request item B-135, using business reply card on page 214.

Damask-Like Two-Tone Prints

Development of a damask-like two-tone print for decorative fabrics has been made known. The ground may be lustrous with satin appearance shimmering with reflected light, and the pattern non-lustrous, or the reverse may be attained.

With this new printing and finishing process an unlimited number of effects possessing the contrasts and

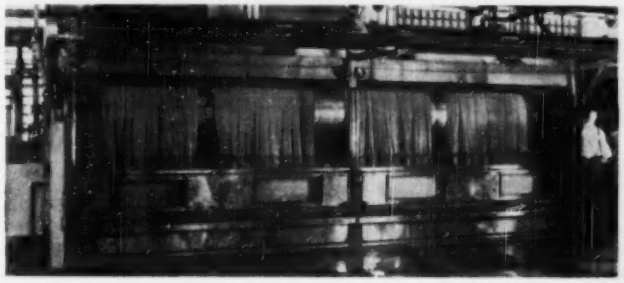
TWENTY-FOOT KETTLE FOR DYEING RAYONS AND BLENDS

As many as 40 pieces at one time of acetate rayon or blended fabrics may be dyed in this all-stainless steel, twenty-foot, piece dye kettle.

The reel is 42 inches in diameter and of the solid drum type with knurled surface which prevents slippage of fabrics being dyed. Machine is equipped with variable speed motor drive; doffer roll is driven by a separate motor; ladder guides are of the positive knock-off type.

Riggs & Lombard, Inc., Lowell, Mass.

For additional data, request item B-105, using business reply card on page 214.



depth of tone of damasks, jacquards, brocades and the like, may be simulated, it is reported.

The processes and finishing techniques by which these two-tone printed lustrous effects are obtained give to the cloth: wrinkle resistance; spot, soil and mildew resistance; do not shrink or stretch out of shape; crisp freshness; lasting lustre; exceptional strength; ease of sewing and draping; durability of all qualities to washings and dry cleanings, according to the announcement.

Joseph Bancroft & Sons Co., Rockford, Wilmington 99, Delaware (B-110).

Explosion-Proof Motors

New squirrel cage, totally enclosed, type CSP, explosion-proof Life-Line motors are designed for constant speed drive applications, such as pumps, blowers, compressors, etc.

Heavy steel construction is used for resistance to corrosive atmospheres. Special primer, thermoset varnish and nitrocellulose base finish are used. Pre-lubricated ball bearings provide effective lubrication without attention.

Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa. (B-115).

NON-FLUID OIL
TRADE MARK REGISTERED

Better Carding Because . . . .

Dripless, wasteless NON-FLUID OIL stays in bearings, keeping them cool and free from wear.

When used in comb boxes, NON-FLUID OIL does not cause gumming and heating as do so-called semi-fluid oils or thin grease substitutes. Heat is usually a sign of wear, so change to NON-FLUID OIL and assure cool comb-boxes and trouble-free carding.

We are prepared to furnish mills with skilled engineering service. Write for Bulletin T5TI and free testing sample of NON-FLUID OIL.

NEW YORK & NEW JERSEY LUBRICANT COMPANY
292 Madison Avenue, New York 17, New York
Southern Dist. Manager: Falls L. Thomason, Charlotte, N. C.
WORKS: Newark, N. J.

WAREHOUSES: Atlanta, Ga. — Greenville, S. C. — Charlotte, N. C. — Columbus, Ga. — Greensboro, N. C. — Birmingham, Ala. — Providence, R. I. — Chicago, Ill. — St. Louis, Mo. — Detroit, Mich.

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

Second Edition of Morton's Text on Spinning

An Introduction to the Study of Spinning by W. E. Morton of Manchester, England, has been revised to include developments which have taken place since 1937. (Longmans, Green & Co., Inc., 55 Fifth Ave., New York, N. Y. $3.00.)

Major alterations and additions of this second edition are found in the chapters on raw materials, especially rayon.

Dyes for Cotton Printing

A stabilized azoic dye, Calconyl Blue G Powder (in its solution form, Calconyl Blue G Single Solution) has been announced.

The products are recommended for cotton printing, where acid ageing is available, to produce economical, clear, full navy blue shades with fairly good fastness to light and excellent fastness to washing, perspiration, dry cleaning and plisse.

American Cyanamid Co., Calco Chemical Division, Bound Brook, N. J. (B-109).

Jute, Canvas and Cordage Year Book and Directory

The 1949-50 year book and directory of the Jute, canvas and cordage manufacturers of the world was recently published by British-Continental Trade Press Ltd., London, England.

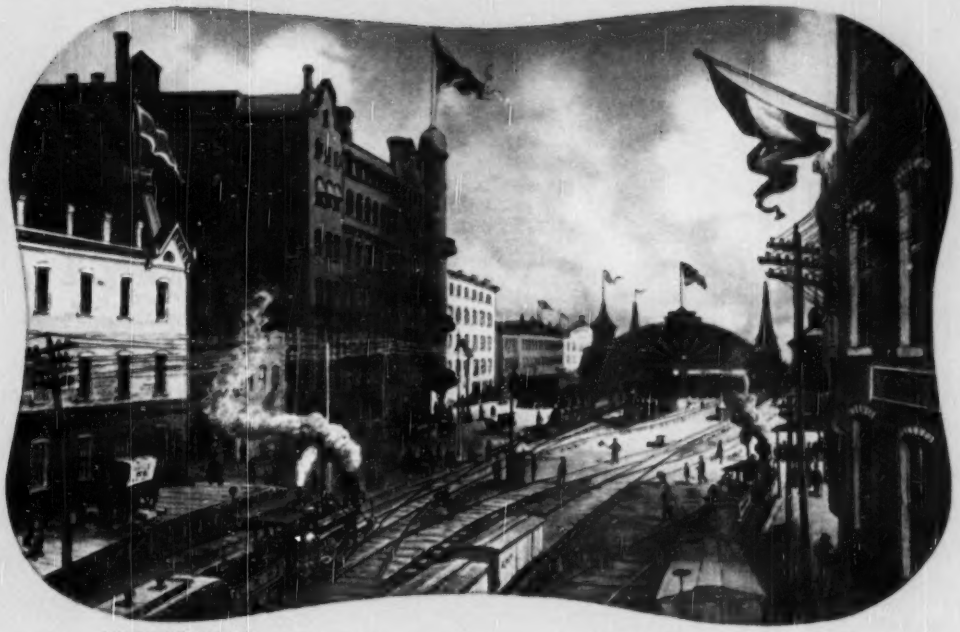
Copies of the directory may be obtained in this country from John D. Griffiths, 2 Clark Court, Rutherford, N. J.

Portable Bucket Pump for Centralized Lubrication

A portable, high pressure Centro-Matic bucket pump, Model 1808, 30-lb lubricant capacity, has been developed for use with centralized single line lubrication systems.

(Continued on page 233)

Rapid railroad expansion is opening vast markets to mainline distribution.
THE ISELIN DIARY, 1887



THE BETTMANN ARCHIVE

Shunt to the main trunk...

The "motive power" of business is working capital. Shunting this capital from the sidings of idle receivables to the mainlines of production and distribution has long been Iselin's function . . . Iselin Factoring assures availability of your working capital for productive use, turning receivables to cash and ending credit losses . . . For 141 years, our service has been geared to our clients' needs. It can put *you* on the track to greater profits. Send for booklet on our Factoring service to industry.

William Iselin & Co., Inc.

357 Fourth Avenue, New York 10, N.Y.

FOUNDED IN 1803

SERVING THE TEXTILE INDUSTRY SINCE 1899

SONOCO

Dytex Tube

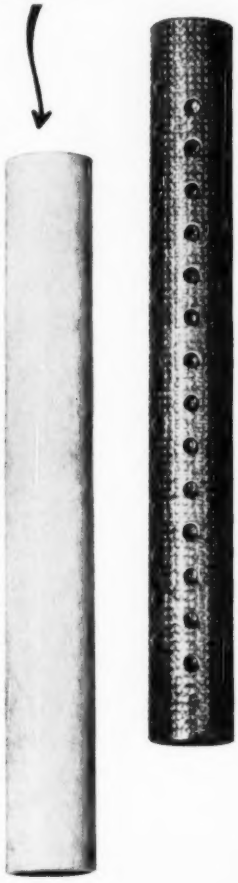
For Package Dyeing

Available in standard size—
6¾" x ⅝" I. D. and 1⅝" I. D.
with varying lengths.

Special sizes also available.

FOR ONE-TIME USE

WITH FILTER PAPER SLEEVE



SONOCO has recently developed the filter paper sleeve to fit standard size Dytex Tubes for improved results in package dyeing. Made for one-time use, the paper sleeve filters the dye bath, reduces the velocity and distributes the flow of the dye liquor. It also helps in reducing slippage when the wind is started.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

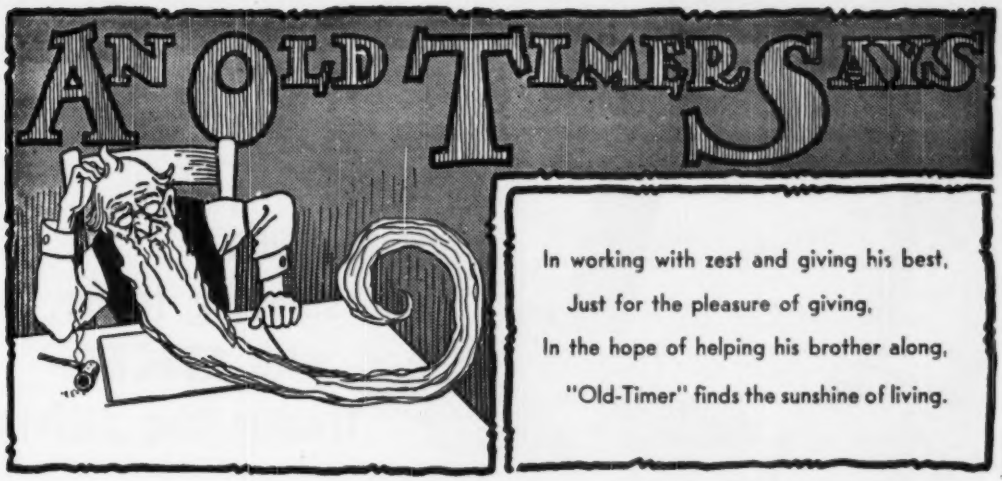
Paper Carriers for Every Textile Need

SONOCO PRODUCTS COMPANY

BRANTFORD ONT. | HARTSVILLE S. C. | MYSTIC CONN.

DEPENDABLE SOURCE OF SUPPLY

sonoco — KNOWN THE WORLD — PAPER CARRIERS — REG. U.S. PAT. OFF.


AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living.

Can You Dream?

CAN YOU dream? Now that would seem to be a foolish question to ask anyone, wouldn't it? Because we suppose every human being dreams. That is, they dream during their sleeping hours. Well, that is not what we have in mind at all! We want to know if you can dream during your working hours. In fact we have used the word dream just to catch your attention—to get you interested.

Because dreaming, that is daydreaming, is closely allied to what we want to talk to you about, and that subject is IMAGINATION. But don't jump at your possible conclusion too quickly and surmise: There goes OLD-TIMER again harping on Imagination.

We honestly believe that if you will study (not just read) this series of articles, you will most surely improve your efficiency as a textile operating executive; you will improve your personality and convert your daily work into a chore which will bring happiness instead of the tiresome bore many men feel that their job is.

Yeah, you say, I have Imagination, and we admit that all human beings have Imagination, we suppose, but what we are interested in is: What are you doing about it? As a textile operating executive are you using your Imagination as you should or as it is possible for you to use it?

Just how important is Imagination in the work of every overseer, assistant overseer, superintendent, manager, or mill president? We hope to point out to you in this treatise that your Imagination, if developed properly, can put more dollars in your pocket than a half dozen of your other faculties, all put together.

This is going to take considerable argument on our part we will admit. We may not adhere strictly to the line of continuity because we write more or less like we were talking to you, and while on one line of thought, if we think we hear you ask a question, we may shoot off in another direction in our efforts to make our reasoning clear; or in the hope of planting a thought in your mind which will not only *stay* there but plant it so deeply that it will take root and grow.

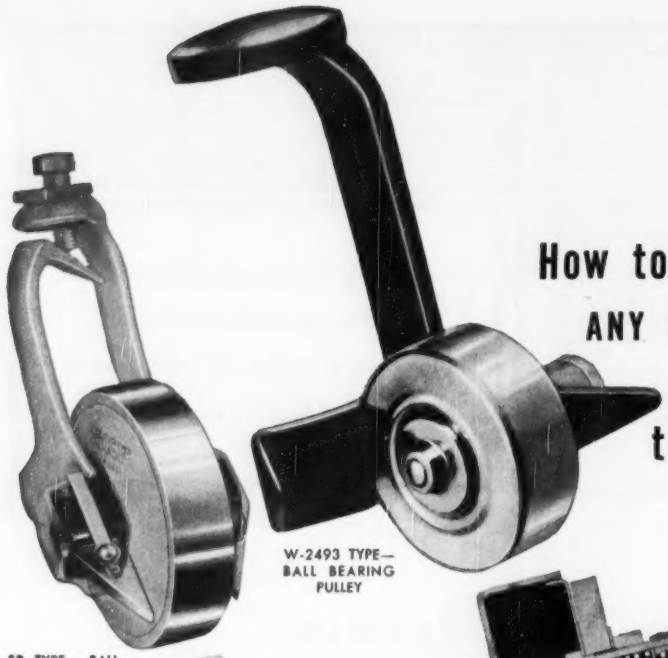
That's the main object: To make your thoughts grow.

Therefore, we are giving you warning: Unless you are willing to do a little serious thinking and use your own brains to elaborate on the thoughts we are trying to present to you, throw this OLD-TIMER article aside and take up a Dick Tracy story or something else to read. If you don't give a darn about getting into a higher bracket of income tax, then you will be wasting your time trying to delve into the so-called mysteries of Imagination.

However, let us assure you that, like most traits of human nature, there is no mystery to it. Watch a bunch of kids playing and you see Imagination popping out of practically everything they do. Think back to your own playful days when you were about 5 to 10 years of age.

Well can OLD-TIMER remember when his father built a new house, leaving a large pile of saw dust where the saw mill had cut the lumber. There passed by that house every day two 4-mule teams hauling bales of yarn, which a

How to equip ANY spinning frame with SKF trouble-free pulleys



W-2493 TYPE—
BALL BEARING
PULLEY

SR TYPE — BALL
AND ROLLER
BEARING PULLEY

SKF offers the textile industry two types of tape tension pulleys equipped with anti-friction bearings. One . . . Type SR . . . is designed for new installations or as change-overs with new brackets. The other . . . Type W-2493 is designed for instant replacement of plain bearing pulleys without changing brackets. Both types bring you the advantages of constant speed with minimum power consumption; complete seal against lint and fly; longer tape life; freedom from any need for frequent attention or lubrication. SKF Tension Pulleys are helping speed production in every size mill. You can profitably put them to work for you . . . and be sure you will get the fully dependable service characteristic of all SKF products.

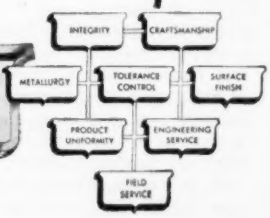
7053

SKF Industries, Inc., Philadelphia 32, Pa.

SKF

TENSION PULLEYS

8 REASONS WHY SKF IS PREFERRED BY ALL INDUSTRY



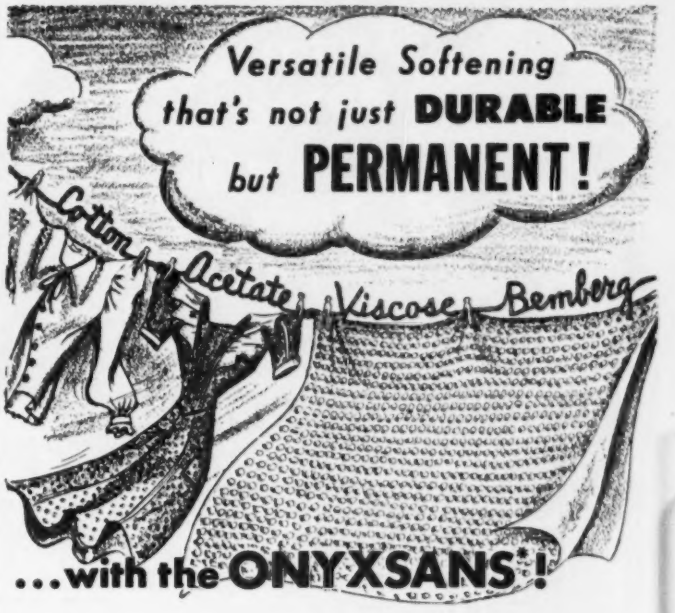
Pioneers of the Deep Groove Ball Bearing—
Spherical Roller Bearing—Self-Aligning Ball Bearing

yarn mill was sending about 8 miles to the railroad. We sat on top of that saw dust pile with a long whip and drove our Imaginative 4-mule team, calling out the name of each mule. What did you do? Run a steam engine—drive a fine new automobile, or what?

Whatever you pretended you were doing, that was your Imagination working. Rather unproductive Imagination we admit, but it was the faculty of Imagination functioning just the same. Now what we want to show you is that the same faculty—Imagination—can be made to produce dollars for you if you will train it to work as it has worked and is working for thousands of successful men today. Yes, and it will continue to work as long as human beings are competing with each other in the textile business or any other kind of business.

What we have said so far may be termed an amateur or first grade prologue to a more definite and, we hope, a clearer explanation on the subject of Imagination. If you would go to the trouble of reading a few books on Imagination, which you certainly should do, you will discover it has been the subject of profound thought since philosophers, theologians, and psychologists began to write. Along about 1500 A.D. Giovanni Pico was probably the most prolific writer. Although a politician, he wrote on varied subjects. Some of which were philosophy, theology, astrology, psychology, and Imagination. You see, gentlemen, the study of Imagination is nothing new by any means. Practically all leaders of men and successful men in all lines of business have realized: The importance of Imagination.

Just why the subject is not stressed more in modern colleges and in textile schools, in foremanship training courses and by modern authors of business books, we are unable to explain. Charles M. Schwab, the great steel production magnate, was a great advocate of the use of Imagination. We believe he was one of the first men to be paid a million dollars per year salary. He attributed his success to the selection of his key men, then using his Imagination



ONYXSANS are cationic softeners offering an extremely wide range of hands from the soft fluffiness of a kitten to the firm, waxy finish of printed rayon and cotton draperies. On rough, nubby goods, Onyxsan leaves a fine, soft nap.

Being cationic, the Onyxsans become an integral part of the fiber . . . and on viscose, bemberg, acetate and cotton, provide finishes that are *permanent*. On all other fibers the resistance to washing is outstanding.

Onyxsans are specific stable compounds, with uniform chemical characteristics. They develop no stiffness, mark-off, odors or rancidity in treated goods. They are compatible with hard water, electrolytes and organic acids.

Easy to use in the pad, jig, quetsch or dye beck without process changes, the Onyxsans are also economical, because small quantities produce the required effects.

*Trade Mark Reg. U.S. Pat. Off.

WRITE FOR BULLETIN TX-1
for the detailed story of the Onyxsans and the many and varied finishes they can provide.

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JERSEY CITY 2, N. J.
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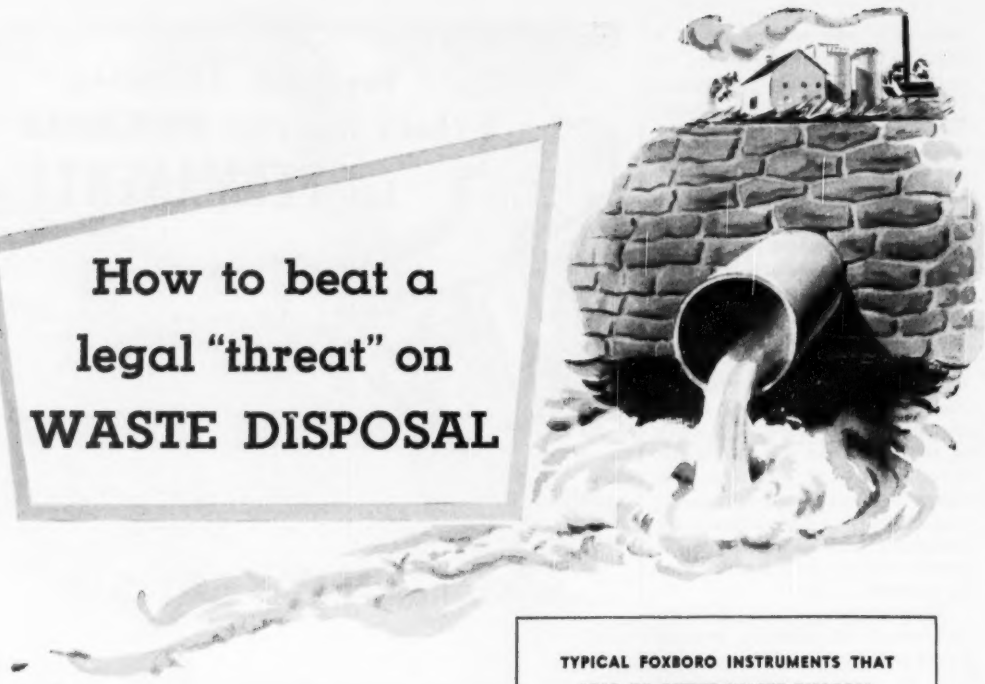
CHEMICALS FOR DYEING · FINISHING · PRINTING

How to beat a legal "threat" on WASTE DISPOSAL



WITH STATE AFTER STATE now imposing legal restrictions on industrial waste disposal, you may be faced with this problem quite suddenly. Only by starting to gather complete data *now* can you be prepared for necessary action when that time comes.

Foxboro has prepared a concise, informative bulletin on how to conduct a waste disposal survey. Based on specialized knowledge and long experience, this bulletin outlines the simple steps you can take to avoid hasty, last-minute plans. It shows how a careful, unhurried survey *now* can easily provide the facts on day-to-day quantities, concentrations, and constituents, so essential to efficient planning.

Send for a copy of "Waste Disposal Surveys", the first bulletin in Foxboro's series on Industrial Waste Disposal. Write **The Foxboro Company, 18 Neponset Avenue, Foxboro, Mass., U. S. A.**

TYPICAL FOXBORO INSTRUMENTS THAT LEAD TO BETTER WASTE DISPOSAL

The Model 40 . . . "The finest modern controller" . . . is the foundation of many outstanding Foxboro Waste Disposal Systems. It is used for the control of flow, pH, conductivity, temperature and other variables. Thousands are in use daily.

Foxboro Float and Cable Type Instruments are specifically designed for use on weirs and Parshall flumes. They read directly in *flow*.

FOXBORO
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RECORDING · CONTROLLING · INDICATING
INSTRUMENTS

to inspire these men to use their own brains, to have vision (Imagination) enough to carry out his ideas, which were often several years ahead of manufacturing technique.

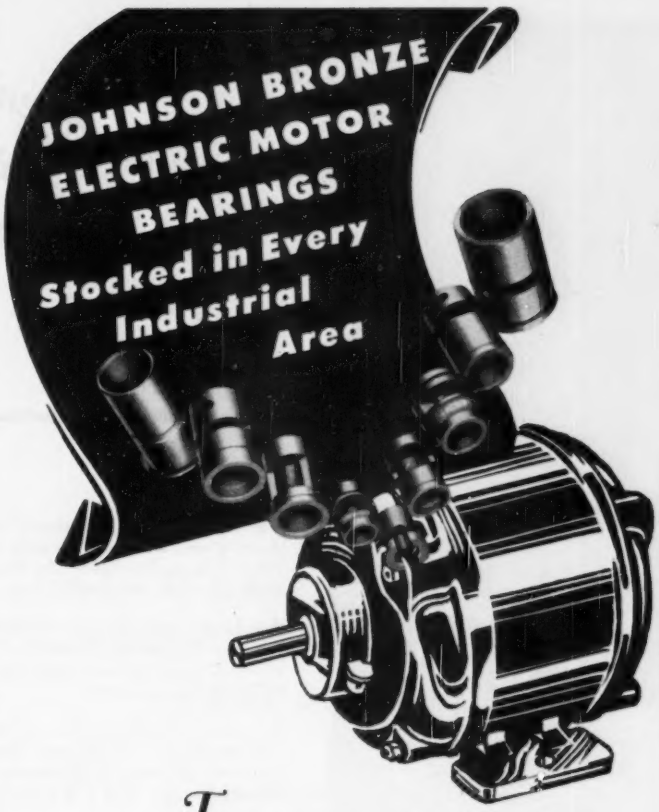
Mr. Schwab was such a strong advocate of the benefits of Imagination that in later life he wrote a book entitled "Imagination In Business." We read this book years ago, but have been unable to find it in bookstores lately. There are, however, numerous books on the subject which every textile operating executive should read for inspiration. Centuries back philosophers realized the importance of reading the works of other philosophers. Let us quote a few words from the man Pico's writings 1500 A.D.: "O noblest of Kings, Maxmillian Augustus, writes that in his view the pagan philosophers were illustrious men when mutually compared with other pagans, but when confronted with philosophers and theologians who have devoted themselves to the worship of the True God, they are empty and insignificant. In this vein may I be permitted to speak of thee, most august Caesar.

"On the nature of imagination itself, ancient writers (he refers to writers long before his time 1500 A.D.) are not agreed. Both Homer and Empedocles, for example, failed to distinguish sense from Imagination. Sense is inferior to the Imaginative power."

Now in our modern times we wonder how many thousands of men have been inspired to greater achievements by reading about Abe Lincoln, Andrew Carnegie, Teddy Roosevelt, and others. If you expect to develop your faculty of Imagination, gentlemen, you should read, read, and then read some more.

Plato, another ancient philosopher, had some very practical ideas about Imagination. We quote: "Imagination performs its functions when the sensible object is rejected. It conceives not only what now is no more, but as well what it *suspects or believes is yet to be*, and even what it presumes *cannot* be created by Mother Nature."

That is pretty deep, isn't it fel-



THIS IS THE MOST COMPLETE motor bearing service on the market. Over 300 different bearings . . . for specific motors . . . are immediately available from stocks in every principal industrial city from coast to coast.

Exhaustive studies of each type of motor were made and leading motor repair shops were consulted. From this mass of information Johnson Bronze determined the correct alloy, the correct design and the correct tolerances for each individual bearing. Every Johnson Bronze Bearing is ready for immediate installation . . . completely finished, with flanges, oil holes, grooves, and slots, exactly to the requirements of your motors. For prompt delivery, call your local Johnson Bronze warehouse.

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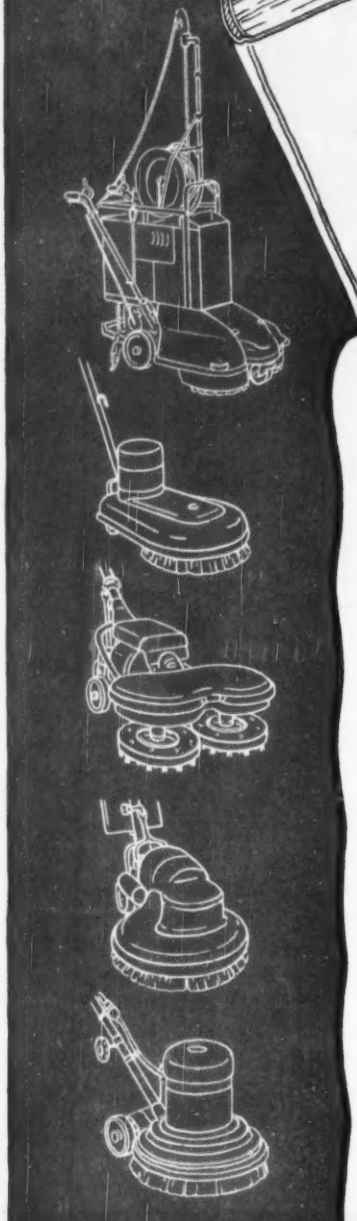


WHAT *Management* SHOULD KNOW about FLOOR-MAINTENANCE MACHINES

The area of a floor, whether it is congested or open, the type of flooring and whether it is easy or hard to clean — these, among other factors, determine the floor-maintenance equipment. For most effectual, economical floor care, choose accordingly.

For large-area floors, a combination scrubber-vacuum is the labor-saving answer. *Finnell's 213-P* applies the cleanser, scrubs, rinses if required, and picks up. Has a cleaning capacity up to 8,750 sq. ft. per hour!

For small-area floors, a 13" all-purpose machine, such as the *new 713 Finnell,* is a wise choice. This machine polishes, applies wax, wet- and dry-scrubs, light-sands, applies seal, steel-wools, and shampoos rugs! Yet it is priced incredibly low.

For grease-caked floors, a dry-scrubber with powerful scarifying brushes affords the fastest cleaning method. *Finnell's 84-XR,* with its self-sharpening brushes, cleans grease-caked floors in *one-tenth the time required when hand-spudding!*

For general use, average duty, substantial savings are effected with a *100 Series Finnell* — the machine that's *two sizes in one!*

For general use, heavy duty, with emphasis on polishing needs, choose a motor-weighted machine. An *800 Series Finnell* gives 8-way adaptability! . . . has *safety switch* on handle.

Because *Finnell* makes machines for every type of floor care — and in a wide range of sizes — you can depend on *Finnell* for unbiased advice as to the equipment that's *right* for your needs. For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1302 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL

FINNELL SYSTEM, INC.

Pioneers and Specialists in

FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES IN ALL PRINCIPAL CITIES

lows, but if you will study the significance of what Plato said you will begin to realize what a man's Imagination can accomplish when applied to his work. Better read the foregoing quote again.

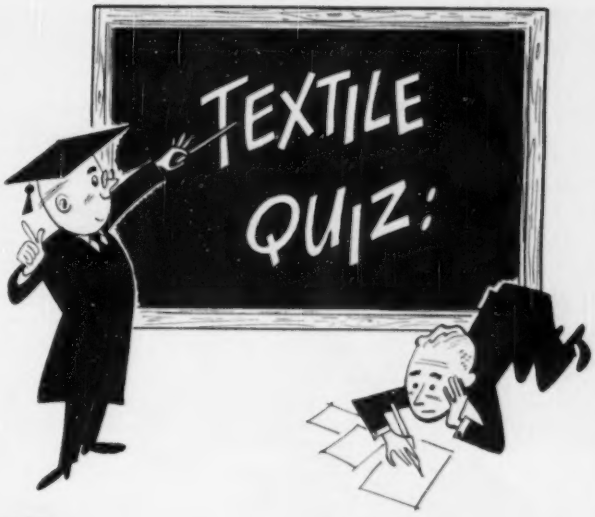
The late Arthur Brisbane (highest paid feature writer of his time) once said: "Anything the human brain can imagine, is possible of accomplishment." By George, that is pretty hard to believe. Still, if you had told OLD-TIMER 40 years ago that your Imagination told you a weaver could run 100 looms (on low pick and sley goods), that a loom could stand a speed of 220 picks per min., that a spinner could attend 20 sides on frames with almost double the number of spindles we had at that time, and the front roll going 50% faster—Well! See what we mean?

Imagination does not necessarily have to be connected with sense. What we mean by that is a man does not necessarily have to be an expert card grinder for his Imagination to conceive a revolutionary improvement on present methods of carding.

OLD-TIMER once secured a patent on a power hedge cutter. Not because he knew anything about landscaping. He did not even know the name of the hedge, but he did know it was costing too darn much to cut all the hedge by hand, which practically bordered every street in the mill village.

No, Imagination does not necessarily have to be connected with expert knowledge, but if you can convert your Imagination into practical application of the idea your Imagination conceived—then you have something concrete, something which is practical and will finally "pay off." Just keep in mind, gentlemen, that practically *all progress has developed from Imagination*, then put yours to work to improve your job.

Imagination as applied to human relations is very similar to imagination applied to advertising. In both of these the problem is to find ways to appeal to peoples' egotism, their vanity, their sense of fairness, or even curiosity. Here is a simple illustration: A manufacturing firm had sold 250,000 units of a certain commodity. We will say it was stoves. This being



Q. ***If your plans to expand require machinery, what do you do?***

A. ***Contact Comer!***

Buying or selling textile machinery — any type from opening to finishing—requires contacts, both with those who want to buy and those who want to sell.

Comer Machinery has those contacts. Whatever your needs Comer can help you to more profitably dispose of excess machinery—or to buy needed equipment more economically.

From a single piece to the liquidation of an entire mill—two generations of experience makes contacting Comer the simplest solution to your machinery problems.

Call, wire or write Comer today.

"SALES AROUND THE WORLD"

COMER MACHINERY COMPANY

Cable Address: COMACH

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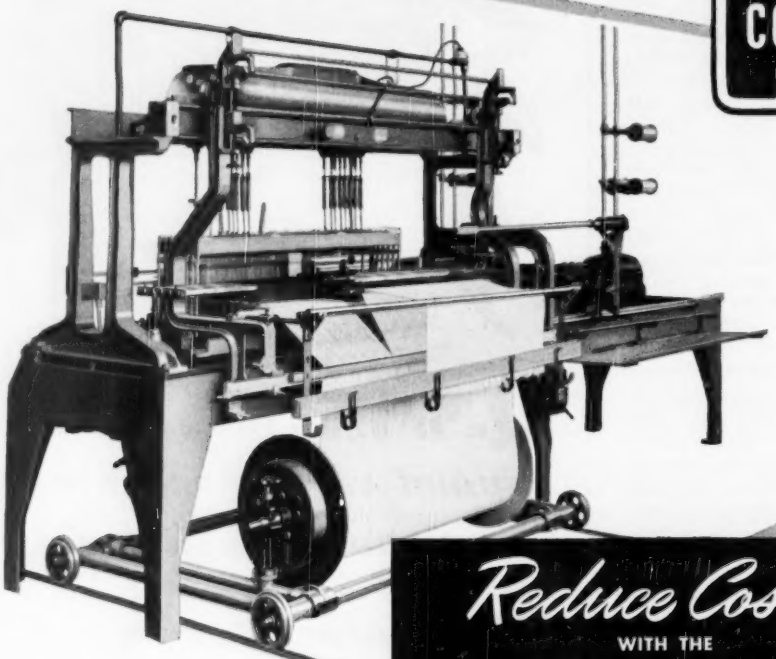
BARBER COLMAN



Reduce Costs!
WITH THE
BARBER-COLMAN DRAWING-IN MACHINE

★ VERSATILE...
★ ACCURATE...
★ EFFICIENT...

See this BARBER-COLMAN DRAWING-IN MACHINE in operation at the AMERICAN TEXTILE MACHINERY EXHIBITION Atlantic City, N.J. May 8 to 12, 1950

Many mills today are running such a variety of weaves, patterns, and stripes that the drawing-in operation becomes a major cost item. *Substantial savings* can be made by the use of a Barber-Colman Drawing-In Machine. This machine will handle any plain, fancy, or dobby weave. It draws-in all the heddles, drop wires, and reed in *one* operation — automatically selecting the proper heddle, drop wire, and reed dent for each thread. Any form of skip draw can be handled as easily as straight sequence, and the draw can be made from either a flat sheet or leased warp. The machine is available in a variety of capacities, drawing as many harness and banks of drop wires as required. Variations in size will take care of all standard loom widths. Modern mills of any size can take advantage of the versatility, accuracy, and efficiency of this outstanding machine to effect important savings in what has been a slow and costly hand operation. Consult your Barber-Colman representative for a discussion of possibilities in your own mill.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND

quite a record of good business, they decided to place an advertisement offering prizes for the best letters, from customers, about these stoves. They received very good response from this ad. Now they proposed to take the best of these letters and publish them in an attractive pamphlet offering the pamphlet through another advertisement to those requesting it.

They placed the advertisement in the papers but did not receive sufficient replies to justify the cost of the ads. With a large number of these pamphlets on hand they had about decided to throw them into the furnace when one of the firm suggested they try another angle in writing an ad. They gave a brief description of the attractive pamphlet, saying no more would be published, etc., (you know the usual wording); then followed a very simple puzzle with the offer to send one of the pamphlets to anyone who would solve the puzzle. They were soon out of pamphlets.

Do you catch the psychology of this procedure? When they interested the reader in doing something (work a puzzle) to get something, they received the response. That is simple human nature, gentlemen.

Don't try to give operatives something for nothing. They will not appreciate it. Not too long ago the president of several textile mills wanted to do something for his operatives at Christmas time. This was long before textile mills were doing any welfare work such as furnishing free gymnasiums, swimming pools, etc. Well, the mill president started sending a turkey to every family at Christmas. After a few years he gave it up, saying he had so many complaints from families who received a turkey one pound lighter than the family next door who had one more child or operative than the other family, etc. It was all complaints and no thanks.

Another man was made president of some textile mills and he, like the previous example, and being a pioneer in many respects, thought he could give operatives many things for nothing. He built quite a few fine libraries and rec-

(Continued on page 215)

on ALLEN Beams

Yarn processed yearly on Allen warper beams and beams using Allen heads is sufficient to reach to the moon and back 93,000 times. The overwhelming preference for Allen beams is based upon time-tested dependability and modern features that withstand roughest handling under today's heavy loads. Made for all models of high speed warpers.

GK—COTTON With Improved Cast-iron Inside Supports at ends, and three two-ply wooden supports between.

GN—NYLON, SYNTHETICS With five Improved Cast-iron Inside Supports as shown.

GR—RAYON With Improved Cast-iron Inside Supports at ends, and seven two-ply wooden supports between.

REQUEST CATALOG

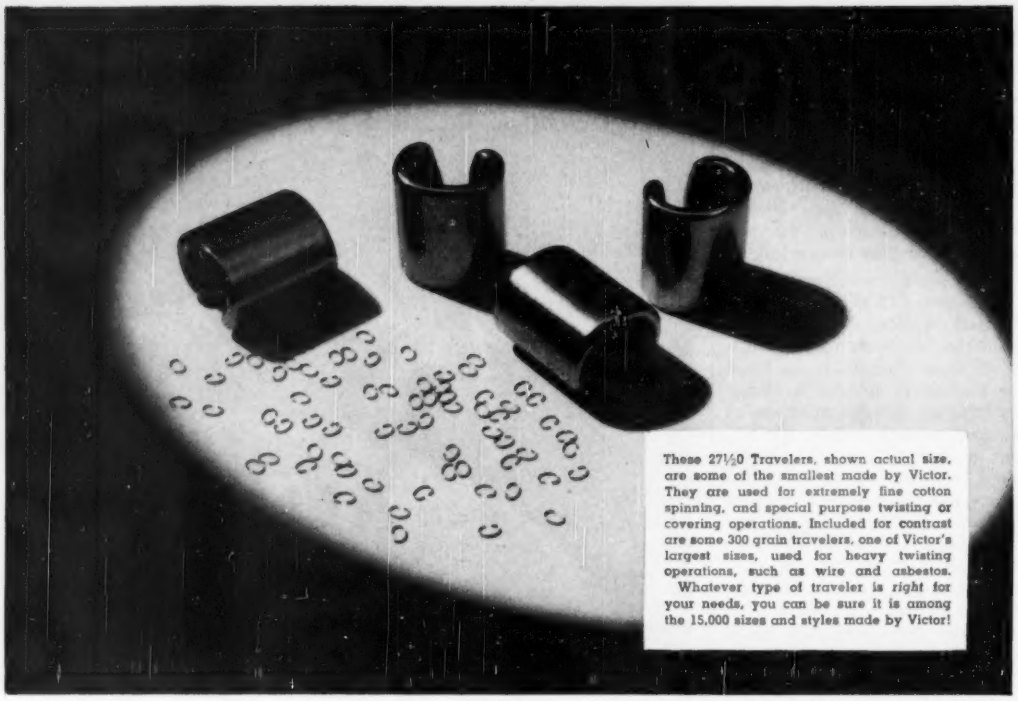
ALLEN COMPANY
Warper Beams — Loom Beams
Adjustable Loom Beam Heads

Allen High Speed Warper and Creel for all fibres

General offices — 154 River Road
New Bedford, Mass.

Representatives in all Textile Localities and all Principal Countries of the World.

"GOOD WARPS ARE MADE ON GOOD BEAMS"



These 27½0 Travelers, shown actual size, are some of the smallest made by Victor. They are used for extremely fine cotton spinning, and special purpose twisting or covering operations. Included for contrast are some 300 grain travelers, one of Victor's largest sizes, used for heavy twisting operations, such as wire and asbestos.

Whatever type of traveler is *right* for your needs, you can be sure it is among the 15,000 sizes and styles made by Victor!

HOW TO STOP TRAVELERS FROM *Growing*

A traveler is the smallest piece of equipment you use in fiber processing. But, if you choose the wrong traveler, you'll see it "grow", prodigiously, in its influence on yarn production, until it blocks your best efforts to meet delivery schedules and quality standards.

With so many new synthetics and blends coming up for processing, it is more difficult today than ever to choose the *right* traveler. Experience with conventional fibers helps. But, to save precious time in setting up smooth-running spinning and twisting, you need up-to-the-minute information.

You can get that kind of information from a man whose job it is to keep abreast of every new development. The Victor Service Engineer is fully prepared to help you keep out of traveler trouble, and more than that, help you raise production and quality, often well above what you expected.

Make sure you are getting the most and the best from your frames, whether you are running blends, straight synthetics, or conventional fibers. Write, wire, or phone, and a Victor Service Engineer will call promptly.

•

Keep a Step ahead with

VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737

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HELPFUL BOOKLETS FREE

Here is the "cream of the crop" of literature on textile subjects as prepared by TEXTILE INDUSTRIES advertisers to aid in mill operation and management. These reference books and catalogs are free for the asking and there is no obligation involved. Read through the list carefully for booklet on the subject or New Equipment in which you are interested. Then fill in the numbers of those desired on the coupon on page 214 and mail to TEXTILE INDUSTRIES. ("First Listings" shown below are not confined solely to TEXTILE INDUSTRIES advertisers).

This service is restricted to those engaged in operation and management of textile industries

First Listing of New Publications

2-1. Pressure Systems. Bulletin B-579 gives a complete explanation of the matter of selecting the proper equipment for hydro-pneumatic pressure systems. A detailed and thorough summary of the interrelationship required of the components for such systems is given. Peerless Pump Div., Food Machinery and Chemical Corp., Los Angeles 31, Calif.

2-2. Woolen Card Feeder. This manufacturer's line of woolen, woolen and worsted and continuous feeders is pictured and described in a recent bulletin. Interesting and informative. George S. Harwood & Son, 50 LaGrange St., Worcester 8, Mass.

2-3. Tank Heating and Cooling. This subject is described and illustrated in a new six-page bulletin. A direct comparison is made between the Platecoil and pipe coil methods of heat exchange. Ten advantages of Platecoil are described in relation to savings in time, money and manpower for the user. Kold-Hold Manufacturing Co., Lansing, Mich.

2-4. Chemicals You Live By. "The Story of the Chemicals You Live By" is a new 16-page booklet which concisely and clearly describes eight major groups of chemical products and depicts their diverse utilization throughout American industry. It is written in simple, nontechnical terms and is attractively illustrated. Diamond Alkali Company, 300 Union Commerce Bldg., Cleveland 14, Ohio.

2-5. Electric Blowers and Exhausters. Bulletin No. 3014-D covers Type E and RE electric blowers and exhausters. Contains complete descriptions, capacity charts and illustrations. Buffalo Forge Company, Buffalo 5, N. Y.

2-6. Unique Industrial Clamp. The Neg'ator clamp is a fundamental form of the Hunter Neg'ator, claimed to be the first elastic member in history to exhibit negative or constant force-deflection characteristics. Under the sections devoted to principles and characteristics the fundamentals are set forth clearly with the aid of engineering drawings. Some of the features of this clamp are: automatic take-up, extendability, flexibility to fit work, constant pressure, and long life. Hunter Spring Company, Lansdale, Pa.

2-7. Heat Exchanger. Bulletin No. 1.7K1, a four-page file size folder, contains complete details of the entire standardized line of stainless steel heat exchangers, claimed to be the first fully standardized and mass produced line of this item. Ross Heater & Mfg. Co., Inc., Buffalo 13, N. Y.

2-8. Silent Chain Drive. New catalog on this item which makes selection of silent chain and chain drives easy. Selection of the drive is made in three quick steps. The drives are available for applications falling within a range of fractional horse-power to well over 50 hp. Whitney Chain & Mfg. Co., Hartford 2, Conn.

2-9. Pipe Tools and Machines. Fifty-two page catalog and price list containing this company's line of pipe threading devices, cutters, reamers, vises, power drives, bolt threading devices, etc. The catalog is fully illustrated and each item is described in detail. The Toledo Pipe Threading Machine Co., 1425 Summit Street, Toledo 4, Ohio.

2-10. Freight Elevators. How to integrate the selection of freight elevators with the material handling problem is but one of many questions answered in the 44-page Buyers' Guide booklet on Freight Elevators. There are ten profusely illustrated sections in the booklet that explain the basic considerations involved when selecting elevators and component parts. Westinghouse Electric Corp., Elevator Division, Jersey City, N. J.

2-11. Michigan Pipe. The following types of pipe and tubing are listed in a new bulletin, wood stave pipe, wood lined pipe, saran rubber lined pipe, stainless steel tubing (fabricated), and monel metal tubing (fabricated). Charts show which type of pipe is best suited for each industry and various chemicals are listed showing the type of pipe recommended for handling the chemicals. Michigan Pipe Company, Bay City, Michigan.

2-12. Textile Chemicals. New bulletin giving facts and information on textile chemicals for lubricating, softening, static control, sizing, scouring and finishing. Bulletin is broken down into two headings; Lubrication, Softening and Static Control, and Yarn Sizing for Knitting and Weaving. American Viscose Corporation, Public Relations Department, 350 Fifth Avenue, New York, N. Y.

2-13. Unitair Compressor. The Joy Unitair, available in eleven sizes, is featured in a new bulletin, No. A-56, which includes an easy-to-use selector chart plus detailed section drawings and parts photographs illustrating economy and operating features. These two-stage, air cooled compressors are furnished as complete motor driven units with three standard electric drives including built-in motor, direct-connected and V-belt drive. Joy Manufacturing Co., Pittsburgh, Pa.

2-14. Fork Trucks and Tractors. New general catalog covering the full Clark line of fork-lift trucks and towing tractors. All pertinent facts necessary to a preliminary consideration of materials handling machines are made easily and quickly available. Data has been so arranged as to make comparisons between various models as simple as possible. Clark Equipment Company, Industrial Truck Division, Battle Creek, Mich.

2-15. Vinyl Butyral Resins. New publication, "Vinylite—Vinyl Butyral Resins" discusses the use of these resins in the formulation of extremely successful coatings. Of particular interest is the development of the "wash primer" type of metal conditioner. In its use all types of metal are given not only positive protection from corrosion between the time of surface preparation until application of subsequent coatings, but also adhesion of those coats is definitely promoted. Bakelite Corporation, 300 Madison Avenue, New York 17, N. Y.

NO MORE *TIPPY* WOOL

with

ANTHOMINE*

on the job!

IN ALL WOOL DYEING OPERATIONS *ANTHOMINE* INCREASES THE AFFINITY OF WOOL FIBRES FOR DYESTUFFS.

THIS RESULTS IN LEVEL SHADES WHEN DYEING STOCK, YARN OR PIECE GOODS.

TIPPY AND BLENDED WOOLS ARE DYED A SOLID SHADE BY ADDING *ANTHOMINE* TO THE DYE BATH.

Mills throughout the country use* ANTHOMINE *for:

- Even dyeing
- Brighter, fuller shades
- Quicker, better exhaustion of dyebath
- Softer, more pleasing "hand"
- Reduced processing time

Send for Technical Service Bulletin #203-100.2 for complete information, including how to use ANTHOMINE for Top and Yarn Dyeing, Pressure or Package Dyeing, Leveling Unevenly Dyed Yarn or Shady Pieces, Dyeing Metallized Colors, etc.

Arkansas Co. INC.

Manufacturers of Industrial Chemicals for Over 40 Years

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GENERAL ECONOMIC, MANAGEMENT . . .

4. HOW FACTORING CAN INCREASE PROFITS—Describes how factoring works; cut in keeping clients' capital liquid and attitude of factor toward checking credits, including typical balance sheet.—COMMERCIAL FACTORS CORP., New York City.

5. FACTORING AND FINANCING — Illustrated booklet on how factoring works, cost and credit information.—TEXTILE BANKING COMPANY, New York, N. Y.

6. ROYCE REPORTER—Published quarterly containing information of general interest to the textile field.—ROYCE CHEMICAL CO., Carlton Hill, N. J.

7. RAYON TELLS ITS STORY TO THE PUBLIC—Folder containing reprints of advertisements explaining some of the many roles in which rayon is serving the American public.—AMERICAN VISCOSE CORPORATION, New York 1, N. Y.

8. "WASTE REDUCTION AND CONTROL"—19-page illustrated booklet giving primary waste factors; how to calculate cost of departmental waste; actual waste figures from mills; contains survey of waste practices. — SOUTHEASTERN ENGINEERING CO., West Point, Ga.

10. "LABOR AND MANAGEMENT BENEFIT BY INDUSTRIAL ENGINEERING PRINCIPLES"—8-page illustrated folder outlining principles of industrial engineering as they apply to textiles.—AMERICAN ASSOCIATED CONSULTANTS, INC., New York, N. Y.

11. FLETCHER JUNIOR "SUPER-SELF-BALANCING" EXTRACTOR—Illustrated folder describing this new extractor with the highly efficient self-balancing arrangement which uses steel springs instead of rubber buffers.—FLETCHER WORKS, INC., Philadelphia, Pa.

12. CONDENSED LISTINGS—8 page pocket sized booklet listing by plant flow the machinery and mill supplies available. Designed to help purchaser in grouping his orders to greatest advantage.—ATKINSON, HASERICK & CO., Boston, Mass.

PLANT AND PLANT MAINTENANCE . . .

102. "TANK TALK"—Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING COMPANY, Providence, R. I.

104. SURFACE MAINTENANCE—Complete literature and details on the method of diagnosing surface maintenance problems and selecting the proper chemicals and coatings to solve them.—STEELCOTE MANUFACTURING CO., St. Louis, Mo.

105. FLUORESCENT LIGHTING FIXTURES—Specification sheets describing in detail industrial lighting fixtures of particular interest to the textile industry. Full information given on construction, light curve, methods of hanging, etc.—SMITHCRAFT LIGHTING DIVISION, Chelsea 50, Mass.

107. FINNELL SCRUBBERS — Illustrated leaflets describing and giving specifications for the new Finnell floor scrubbing machines.—FINNELL SYSTEM, INC., Elkhart, Ind.

110. BASIC TOOLS FOR MAINTENANCE—Two-page brochure covering the uses of the Kent Wet Scrubber and Kent Electric Floor Machine; Dry Suction Machine; D-26 Dry Scrubber and illustrating them.—THE KENT COMPANY, INC., 274 Canal St., Rome, N. Y.

115. ATOMIZER HUMIDIFIER — Recent issue of "Parks' Parables" on Turbomatic self-cleaning humidifiers, and automatic regulation. — PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

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156. HUMIDIFICATION AND AIR CONDITIONING—Equipment described in Bulletin 332. Covers centrifugal humidifier, economizer atomizer, humiduct unit air conditioning systems and central station air conditioning systems.—THE BAHNSON COMPANY, Winston-Salem, N. C.

159. BAHNSON HUMIDUCT SYSTEM — Bulletin 330 describes this unit system of air conditioning for humidifying, cooling, heating, ventilating, filtering, and dehumidifying in any desired combination.—THE BAHNSON CO., Winston-Salem, N. C.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs, as well as preserving textile mill floors.—G. H. TENNANT COMPANY, Minneapolis 11, Minn.

163. LAWLOR FLOOR MACHINES— Illustrated pamphlet containing specifications and describing All-Purpose Floor Machines.—THE SELIG COMPANY, Atlanta, Ga.

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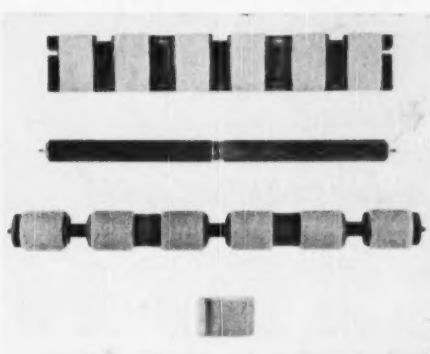

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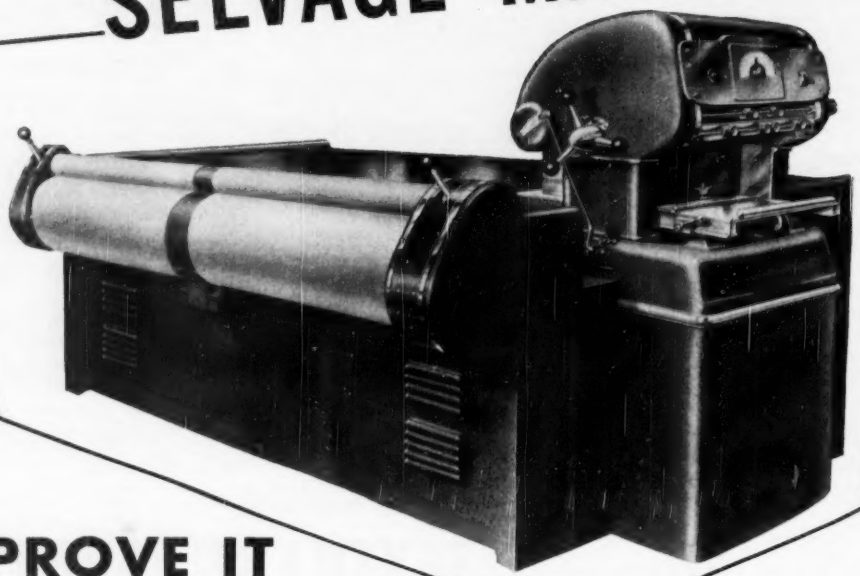

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324. STROBOTAC—Informative reprint, "Stroboscopic Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

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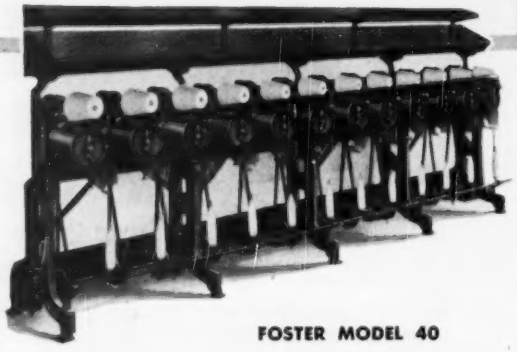

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515. TEXTILE COUNTERS—Catalog No. 10 describing and illustrating complete line of Producto Loom Pick Counters, Hank Counters, Revolution counters and Predetermined Counters, Instruments, etc.—LUBRANT MANUFACTURING CO., Madison 1, Wisconsin.

516. WEAVE ROOM ACCESSORIES—Warp-room accessories catalog and literature on new plastic bobbin bearing sleeves which eliminate bobbin bearing creep room problems.—EMMONS LOOM HARNESS COMPANY, Lawrence, Mass.

517. LOADING SYSTEM—Bulletin 517, on pneumatic loading system by Saco-Lowell Shops; bulletin also contains facts on pneumatic cleaning, conveying, distributing, and prices.—THE FULTON CO., Fulton, Mass.

518. NIAGARA TWIST-SETTER—Folder describing the revolutionary Niagara Twist-Setter which has no moving parts, thus there is eliminated all wear, no effect on condition caused by centrifugal force.—VEEDER-WOOLLEY & CO., Atlanta, Ga.

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565. ENGINEERING PROPERTIES OF MONEL—Technical Bulletin T-1 giving detailed information on strength and ductility, cutting properties, resistance to corrosion and other properties of "Monel" Metal.—INTERNATIONAL NICKEL CO., Inc., New York, N. Y.

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652. TENSITROL WASHER — The "Tensitrol" washer is described as a variable fraction of all washers in one machine, being the only equipment commercially for the tolerance of the cloth itself as it travels through the machine. New bulletin outlines its many advantages and applications. —ROONEY HUNT MACHINE CO., Orange, Mass.

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700. THEORETICAL AND APPLIED SIZE-MAKING—Attractive 16-page booklet outlining methods of size-making and containing information on the selection, use and compounding of size.—ALLIED PRODUCTS CORP., New York City.

710. MERCERIZE FINE OILS—Leaflet briefly describing advantages of using this mercerizing oil in wet processing of textiles.—HERCULES POWDER COMPANY, Wilmington, Del.

712. VANDERBILT MATERIALS—Available in a 6-page booklet describing non-ionic penetrating and leveling agents for textile operations.—R. T. VANDERBILT CO., INC., New York, N. Y.

715. LIGVATINE SD—Tan drums assistant in ensuring penetration and level dyeing with maximum yield of color.—RANDOM CHEMICAL WORKS, New York City.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol resin emollient fluid — with method of preparing baths; also on wax arkansas products for use in textile finishing.—ARKANSAS CO., INC., Newark, N. J.

717. FINISH NO.—Formulas proposed designed as blends in combination with filling and stiffening compounds. Aside finishes, imparts crushing qualities. — RANDOM CHEMICAL WORKS, New York.

720. SYNTHETIC FIBERS — Attractive folder briefly describing the complete product line of this textile fiber producer.—HERCULES POWDER COMPANY, Wilmington, Del.

726. LEVELENE—Booklet describing use of Levelene for leveling out and eliminating streaks in the dyeing of rayon, acetate and viscose yarns, fabrics, etc.—JACQUES WOLF & CO., Passaic, N. J.

727. RAPIDASE FOR DESIZING—Bulletin describing in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 80 Maiden Lane, New York 38, N. Y.

728. LUPOMIN S—Pamphlet outlines the application of this anionic detergent to cotton, rayon, silk, wool, synthetic fibers and mixed fabrics. Gives a list of formulas for use in the finishing plant.—JACQUES WOLF & CO., Passaic, New Jersey.

729. TEXTILE SPECIALTIES—Folder sets forth specialties a wide and complete range of emulsifiers, penetrants and soaps for assistants in chemical treatment of textiles.—GENERAL DYESTUFF CORPORATION, 435 Hudson St., New York 14, N. Y.

732. ONYX TECHNICAL DATA SHEETS—Two sheets describing the new Onyx wetting agent, Triton X-100, and Onyx Soltex S W and Onyx Soltex S O A oil & chemical compound.—ONYX OIL & CHEMICAL COMPANY, Jersey City 6, N. J.

733. SOILSET FINISHES AND FORMULAE—Attractive new booklet describing its development and of basket finishes and giving numerous formulations.—MALDEN MILLS CHEMICAL CORPORATION, Philadelphia 34, Pa.

735. ON FUNT PERSONAL SERVICES SYSTEMS—New card illustrating and describing the maintenance service plans of the company in the textile industry.—JOHN MOURE & CO., ELECTROCHEMICAL ENG'R., Wilmington, Del.

738. TEXTILE CHEMICALS—Starch, oils and polymers, both PVOH finds about Amalgamated Products, the fabrics on which they are used and the skills, both of which are necessary to meet competition.—AMALGAMATED CHEMICAL CORP., Philadelphia 34, Pa.

740. SURFACE TENSION DEPRESSANT — The booklet, Aquamixing and Aquamix — New Liquid Surface Tension Depressant, describes Aquamix which can be used as a wetting agent, as a penetrant, as a detergent, as a scouring agent.—HARRY PRINCHEN CORP., New York, N. Y.

771. "SEARCH STABILIZED" — Folder on Vanderbilt's service and technical assistance to dyeing establishments and the points stressed.—R. T. VANDERBILT CO., New York 11, N. Y.

772. TECHNICAL CHEMICAL DATA SHEETS—Complete set for dyeing, printing and finishing operations, starting with Cl. 1 and ending with Cl. 772.—TECHNICAL CHEMICAL CO., Jersey City 1, N. J.

774. BOYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Boyce products for textile printing, dyeing and finishing.—BOYCE CHEMICAL COMPANY, Lodi, New Hill, N. J.

775. CAUSTIC SODA—Bulletin No. A, an 18-page technical bulletin, is the latest in Solvay's well-known series. The text is profusely illustrated with [illegible] charts and tables.—SOLVAY SALES DIVISION, [illegible] 40 Rector Street, New York.

781. SERIZYME—Bulletin describing the composition and characteristics of Serizyme, a standardized digestive enzyme preparation which may substitute certain [illegible] of malt in [illegible].—WALLERSTEIN COMPANY, INC., 180 Madison Avenue, New York 16, N. Y.

787. HOSIERY DYEING—Catalog of hosiery dyeing machinery, dyeing machinery, washing machines, drying equipment.—AMERICAN DYE MACHINERY CO., Philadelphia 24, Pa.

KNITTING . . .

801. THE WILDMAN SINGLE-HEAD FULL FASHIONED HOSIERY MACHINE—Literature in response to—WILDMAN KNITTING CO., Wildman Division, Norristown, Pa.

802. THE TUBE-TEX FOR TUBULAR KNIT GOODS—Bulletin describing this modern machine which extracts, processes, dries, conditions and folds in one continuous operation, and requires only labor, power, space and waste.—E. W. BUTTERWORTH & SONS CO., Philadelphia, Pa.

80. TEXACO IN THE KNITTING INDUSTRY—Folder on lubricants and lubrication.—THE TEXAS CO., New York, N. Y.

810. ALUMINUM BEAMS—Catalog No. 1-52 describing in detail the advantages of aluminum in the textile industry. Illustrates the company's unique line and complete facilities for warping and sizing.—ALUMINUM INDUSTRIES, INC., Amherst, Ohio.

811. CIRCULAR KNITTING MACHINES—Invaluable information and well illustrated in this 52-page booklet. Not released, which describes this company's complete line of popular knitting machines.—E. ARMITON COMPANY, Philadelphia 34, Pa.

817. THE NEW REINER HIGH SPEED TRICOT MACHINE—16" or 24" knitting widths. A newly illustrated catalog describing the many new features of this machine and its performance.—REINER KNITTING MACHINE, INC., Weehawken, N. J.

818. THE NEW REINER KAYLOOP—A complete Knitting Wonder Loom, described in an illustrated catalog, showing fiber attachment and other important new [illegible] features.—REINER KNITTING MACHINE, INC., Weehawken, N. J.

817. AUTOMATIC SELECTIVE STRIPING MACHINE—Descriptive and illustrative folder, entitled "If It's Stripes, Consult Scripps," now available. Important improvements involved in this process are described.—E. SCRIPPS COMPANY, Philadelphia, Pennsylvania.

818. HILTON LIGHT METAL BEAMS FOR EVERY APPLICATION—Catalog of [illegible] Hilton Light Metal Beams, Beam Ends, Gears and the Special Light Metal Parts Used Throughout the Textile Equipment.—HILTON ENGINEERING WORKS, INC., Hilton, Pa.

820. VARIABLE STRIPES AND PLAIDS—Booklet describing Stripomatic Markets Co. and Ex-R-Ay Reports for making plaids, stripes, etc.—STRIPOMATIC KNITTING MACHINE CO., INC., Brooklyn 6, N. Y.

827. HIGH SPEED JERSEY CIRCULAR KNITTING—Attractive illustrated booklet showing features and capabilities of this high speed knitting equipment. Also available — New Cylinder Chart. — SUPERIOR ENGINEERING MACHINERY CO., INC., 160 Johnson Ave., New Jersey.

SEWING MACHINES . . .

915. THE NEW UNION SPECIAL LOCKSTITCH MACHINES—Information on the new model which sets precedent time on sewing operations. 2 operations in Bulletin No. 915.—UNION SPECIAL MACHINE CO., Chicago 14, Ill.

916. THE SUPERLOCK—Bulletin 916 describing and illustrating the W & W Superlock overseaming machine.—WILCOX & GIBBS SEWING MACHINE CO., 318 W. 39th St., New York 18, N. Y.

920. FEED-OFF-THE-CAM FELLING MACHINE — Model No. 295, illustrates and describes the "Fabilock" with Automatic Lubrication, for lap seaming, felling or plain seaming shirts, etc.—WILCOX & GIBBS SEWING MACHINE CO., New York, N. Y.

MATERIALS HANDLING . . .

1004. HOW TO DETERMINE WHERE OVERHEAD MATERIALS HANDLING EQUIPMENT CAN BE USED PROFITABLY — Profusely illustrated booklet describing the various types of materials handling. Helps you to determine where and what equipment might be used to speed production, cut costs, etc.—CLEVELAND TRAMRAIL DIV., Wickliffe, Ohio.

1002. CATALOG NO. 52—An attractive illustrated catalog describing in detail the Shepard elevated conveyor and the new casting trends in textile use.—MESKER INC., Madison, Ind.

1003. CASTERS AND WHEELS—161 pages, describing casters and wheels suitable for all types of industrial machines. Every conceivable mounting of steel and rubber wheels is here in one book.—DARNELL CORP., LTD., Ridge Road, Lyndhurst, N. J.

1005. BASKETS, HAMPERS & TRUCKS—This 56-page catalog is chock full of useful and time-saving articles; description on the Bender line, especially designed for the textile industry.—O. E. DANIELS & SON, Lynn, Mass.

1006. LAKE CANVAS BASKETS—16 page illustrated booklet describing the Lake line of canvas baskets for textile use.—W. T. LAKE & BROTHERS, Punxsutawney, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT — 68 page catalog illustrating and describing complete line of material handling equipment for every kind of industrial problem.—THE AMERICAN MONORAIL CO., Cleveland, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications covering a complete assortment of Colson Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveyors. Shows time-saving short systems. Well-illustrated with photos showing layouts and machines shorthaul cheap. Not a sales aid, but different. Write on use for maximum results.—LOGAN COMPANY, INC., Louisville, Ky.

1011. CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS—Bulletin No. 127 describing and illustrating the single beam CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS.—Bulletin No. 129 describing and illustrating the single beam CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS.—Bulletin No. 131 describing and illustrating the single beam CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS.—CM HOIST & CRANE & MONORAIL DIV., Manufacturing Corp., Manitou Falls, N. Y.

1027. SINGLE BEAM CRANES—Bulletin No. 126 describing and illustrating the single beam CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS.—CM HOIST & CRANE & MONORAIL DIV., Manufacturing Corp., Manitou Falls, N. Y.

1028. C-O HOLLOW WARE—This 32-page catalog, 8-11, profusely illustrated in color, shows Oneida-Ware, a full line of hollow ware, trays, tureens, baskets and trays. Complete description and specifications are given for each piece.—ONEIDA-WARE DIV., Oneida Ltd., Oneida, N. Y.—CONTINENTAL-DIAMOND FIBRE CO., Newark 98, Del.

MISCELLANEOUS . . .

1101. AUTOMATIC BOBBIN REFINISHER—A 4-page folder illustrating and describing method of refinishing threading bobbins on a production schedule.—J. M. HARE COMPANY, 2500 N. 19th St., Philadelphia, Pa.

1102. SALES PROBES—An illustrated folder describing this manufacturer's complete line of belts for all materials. Both Downstroke and Upstroke models.—GARLOCK PACKING CO., Palmyra, N. Y.

1103. DERRICK SCREWS — Illustrated 8-page booklet No. 579 gives data on Osborne hollow pat. screws, with serrated points and self-locking features. Also Acme-Osborne screw and positive nut data.—STANDARD FORGING STEEL CO., Jamestown, Pa.

1104. INTERPRETATION OF ANALYSIS — It contains the latest opinions of terms which most frequently appear in analysis of sulfites which chemicals. It attempts has been made to explain to clearly the significance of the various tests and to those who have had little or no chemical training.—HOPCO CHEMICAL CO., Hammond, Ind.

1107. AUTOMATIC QUILL POLISHER—Bulletin describing the operation of this machine which polishes 2000 new quills per hour in perfect succession at minimum labor cost.—H. M. HARE CO., 2500 N. 19th St., Philadelphia, Pa.

1108. FABRICATION OF U. S. STAINLESS STEELS—136-page book covering type of stainless steel in textile equipment from the standpoint of fabrication, welding, heat treatment, etc.—GARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh, Pa.

1111. Handbook—A 32-page booklet is now available which describes and illustrates the complete line of [illegible] of rayons, etc. For copies, write to:—GENERAL DYESTUFF CORPORATION, 435 Hudson St., New York 14, N. Y.

1114. BOSTON TEXTILE TAPES—These tapes have been established pharmaceutical and dependable information on the many uses for pressure sensitive tapes in the textile industry.—BOSTON WOVEN HOSE & RUBBER CO., E. Foxboro, Mass.

TEXTILE INDUSTRIES, 806 Peachtree St., N.E., Atlanta, Ga.

Please send me, without obligation, free booklets or further information on New Equipment items described in the February, 1950, issue of TEXTILE INDUSTRIES.

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reational buildings, but after many unhappy experiences he gave up.

No, to give something for nothing does not seem to fit in with the laws of human nature..

Ideas which do not reckon with human nature do not bring results. Advertisements which do not employ Imagination do not bring results.

(*Continued Next Issue*)

Devaluation Poses Problem For Carpet Industry

"Carpet sales for the third quarter of 1949 have shown what is probably the sharpest increase on record," Joseph L. Eastwick, chairman of the board of trustees of the Carpet Institute, Inc., and president of James Lees & Sons Carpet Company, declared at the 22nd annual membership meeting held recently at the Waldorf-Astoria, in New York.

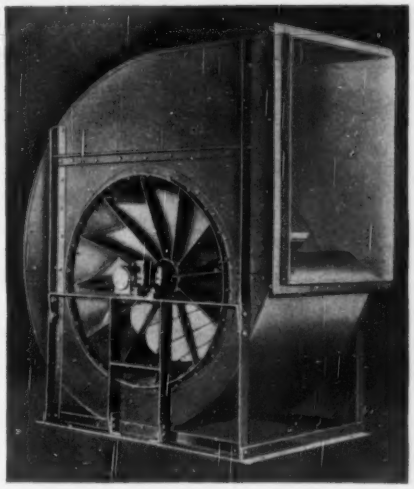
"Recent devaluation of world currencies," he continued, "poses problems for our industry because we import carpet wool from all over the world. Carpet wool prices today are considerably higher than in late June, despite devaluation. It should be obvious to everyone that with American economy by no means out of the recession increases in wool costs will adversely affect this industry."

New Fabric of Wool-Nylon Announced by Botany

Introduction of a new fabric, a combination of wool and nylon, was announced recently by Botany Mills, Inc. Under the brand name "Botanyl," the fabric will be produced in a variety of weights and combinations suitable for an extensive range of apparel items, including both woven and knitted products.

Botanyl is the result of several years of exhaustive laboratory research and experimentation to evolve a fabric which would combine the best features of wool and nylon. The resultant textile can be produced in extremely lightweight fabrics of exceptional tensile strength and durable wearing quality.

It Takes a LOT of Air TO PRODUCE *Textiles*



AT PEAK EFFICIENCY

and Here's the Fan to do it!

"Buffalo" LIMIT-LOAD FAN

Keeping plenty of fresh air circulating through hot or humid areas in the textile mill improves both worker efficiency and product quality. "Buffalo" Limit-Load Fans are generally your cheapest method of distributing these large volumes of air. LL fans are non-overloading. They operate at high efficiencies on relatively high pressure systems. They're excellent where you need an air exhaust system, or for drawing air through air washers. For other air applications, "Buffalo" builds a complete line of specialized fans. Ask your nearby "Buffalo" engineering representative for unbiased advice.

WRITE FOR BULLETIN 3675

with its complete engineering data on "Buffalo" Limit-Load Fans, performance curves and other helpful information.

A WEALTH Of Air Information —only $6.00!

If your job has to do with AIR, you'll want FAN ENGINEERING! In its 5th Edition, this 808-page pocket-size manual gives you quick, practical answers on air, its applications and the equipment to handle its many jobs. ORDER NOW! $6.00 Postpaid in U. S. A.

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Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

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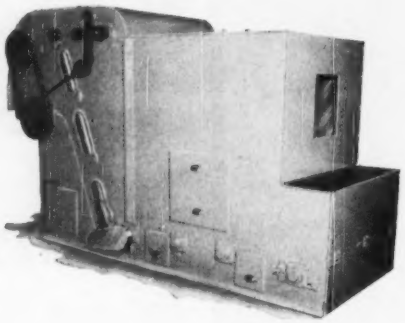
Now the *Improved* Salisbury Enclosed Blending Feeder!



FEATURES YOU'LL APPROVE

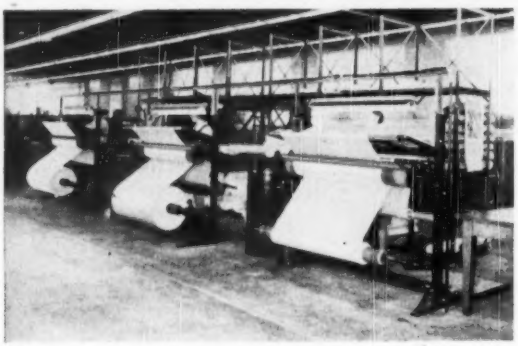
1. New design featuring fully enclosed 3/16" fabricated steel hopper, utilizing present cast iron front of F-5 hopper. Therefore offering you the benefit of a completely new feeder at considerably lower cost.
2. "FAFNIR" Self-Aligning Ball Bearings eliminate oil leakage and assure clean fibres.
3. Large hopper facilitates better blending of various fibres . . . less time of operator required.
4. Provision for attaching automatic sprinkler head and vacuum lines . . . all usable waste fibres may be reclaimed from waste container.
5. Safety covers for sprockets and gears; removable closure plates.

We'll Gladly Give You ALL the Facts

SALISBURY IRON WORKS, Inc. SALISBURY NORTH CAROLINA

We Also Manufacture Rayon and Cotton Loom Beams and Sargent Comb Assemblies

BE 100 PERCENT SURE OF YARDAGE AND CONDITION OF YOUR FABRICS



Write today for descriptive, illustrated folder showing various types of Hermas Measuring and Examining Machines—no obligation, of course.

Many users have found Hermas machines pay for themselves in a few weeks through the losses they eliminate by assuring exact measurement of every piece.

Their superior accuracy has made them the choice of arbitration groups and testing laboratories, such as the United States Testing Company and Federated Textiles, as well as of weavers, dyers, and converters in the United States, Latin America, and Europe.

There is a Hermas Measuring and Examining Machine for your specific textile need. Models to take all types and sizes of rolls or put ups, for all weaves. Through lighting, in table or at back of machine, is available.

HERMAS MACHINE COMPANY

America's only specialist in clothroom equipment exclusively

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Carolina Specialty Company, Charlotte, N. C.
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Unisel, Ltd., Manchester, England
Robert R. Simpson, 498—12th Avenue, Paterson, N. J.

EXPORT DIVISION: Francis H. Love, 57 William St., New York City

PERSONAL NOTES

ABOUT MEN YOU KNOW

The Southern Regional Research Laboratory, New Orleans, La., has as its new head **Dr. Charles H. Fisher** of the carbohydrate division of the Agriculture Department's Eastern Regional Research Laboratory in Wyndmoor, Pa. He succeeds **Dr. Walter M. Scott** who now is assistant chief of the Department's Bureau of Agricultural and Industrial Chemistry in Washington.

Harry M. Detwiler is now assistant sales manager of Aberfoyle Manufacturing Co.'s northern division. He formerly was assistant export manager.

Wilton Todd, formerly manager of one of the Kendall Mills at Newberry, S. C., has been named chief of the textile branch of the Industry and Mining Division of the Economic Cooperation Administration in Seoul, Korea.

Ward Delaney, president of the Institute of Textile Technology, Charlottesville, Va., has been appointed executive director of the Oscar Johnston Cotton Foundation, according to an announcement from the National Cotton Council. Mr. Delaney's resignation from the Institute becomes effective June 1, 1950; however, through a leave of absence granted by the board of trustees he has assumed his duties with the Foundation.

After fifty years in the textile industry, **J. A. Migel,** vice-president in charge of sales of American Silk Spinning Co., has announced his retirement.

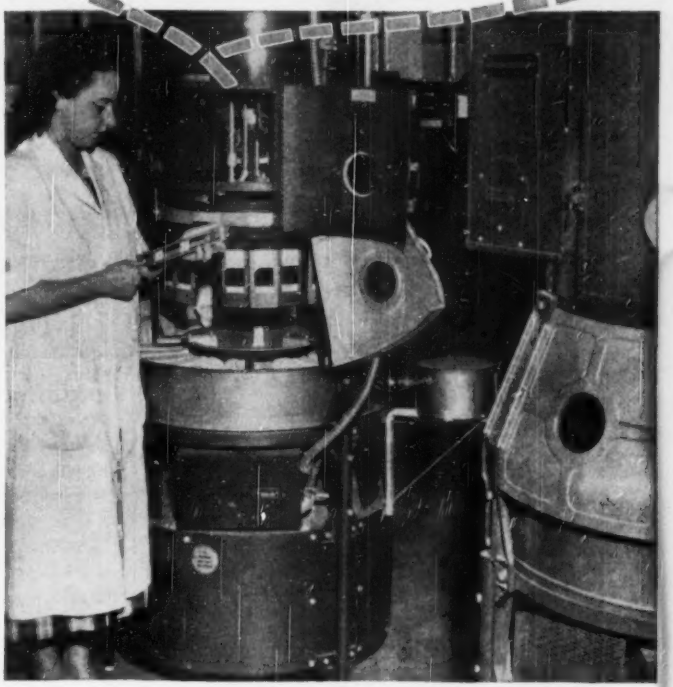
Donald A. Campbell has been appointed assistant executive secretary of the National Canvas Goods Manufacturers' Association, Inc., with headquarters in St. Paul, Minn. He was previously manager of Peoria (Ill.) Tent & Awning Co.

P. B. Lewis, formerly superintendent of the Aberdeen (N. C.) division of Robbins Cloth Mills, has succeeded **Clifford H. Ashley,** resigned, as manager.

A number of personnel appointments and changes were announced at the annual stockholders meeting of Wamsutta Mills, New Bedford, Mass. **Fisher Abramson** was ap-

ATLAS-OMETERS

. . . helping to maintain famous Bur-Mil quality



Atlas Fade-Ometers and Launder-Ometers are in constant use in the modern laboratories of the Burlington Mills Corporation, serving two important functions—quality control and progressive research.

To assure unvarying quality in daily production, fabric samples from each phase of processing are subjected to exhaustive tests in Fade-Ometers and Launder-Ometers. These tests help to determine color fastness, bleeding, shrinking, and resistance to washing and mechanical action. Samples that fall short of the high Bur-Mil standard result in rejection of the entire lot.

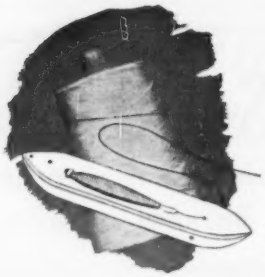
Bur-Mil designers, also, use these Atlas-Ometers when experimenting with new fabrics. Because the Fade-Ometer so accurately duplicates the deteriorating effects of sunlight, and the Launder-Ometer the effects of commercial laundering, designers can ascertain in the laboratory whether fabrics will withstand actual use satisfactorily.

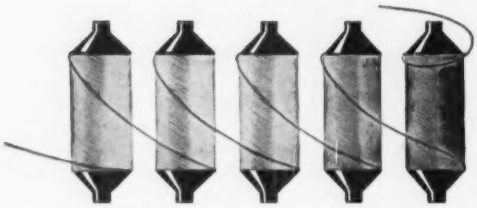
The machines are adaptable to a wide range of products. They are simple to operate, and may safely be left in continuous, unattended operation.

ATLAS ELECTRIC DEVICES COMPANY

361 West Superior St., Chicago 10, Ill.

WEATHER-OMETERS • FADE-OMETERS • LAUNDER-OMETERS





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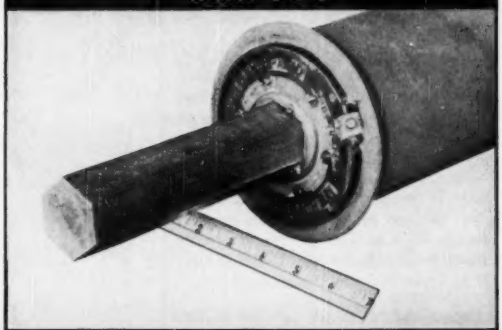
Solve "Wet Service"
EXPANDING PROBLEMS
with . . .



Mount Hope SEALED END EXPANDER

EXCLUSIVE Mount Hope Sealed End feature triples life of expanders under wet conditions.

INNER PARTS are completely protected when handling fabrics under wet or steaming surroundings, or when conditions are such that liquid would ordinarily run into the ends of the expander.

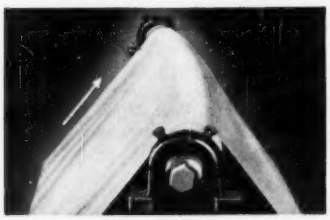
IF DESIRED, stainless steel axle with bronze brackets and bronze clamps can be used to further increase life.

MANY PLANTS are completely converting their wet service expanding operations to Mount Hope *Sealed End* Expanders.

MOUNT HOPE EXPANDERS are used for spreading and for eliminating wrinkles in all fabrics, from rayon marquisettes to tire cord, plastic film and paper.

A MOUNT HOPE ENGINEER will be glad to advise you upon request without obligation.

Send for Bulletin S-EC-1.



MOUNT HOPE MACHINERY CO.

42 Adams St., Taunton, Mass.

Representatives — Parkman Collins Company, Boston—for Maine • Ingalls Engineering Company, Providence—for N. H., Mass., R. I., and Conn. • John H. Andresen, Inc., Paterson—for Southeastern N. Y., N. J., and Pa. • A. B. Julin, Watertown, New York—for Northern and Western N. Y. • Slaughter Machinery Company, Charlotte—for the South • S. S. Wilson, 1737 Howard St., Chicago—for Mid-West • Sidney Springer, Los Angeles—for California • W. J. Westaway, Ltd., Hamilton and Montreal—for Canada

pointed vice-president as well as being elected treasurer. **A. Anthony Dreyspool** and **Cornelius P. Gearon, Jr.,** were also appointed vice-presidents. District managers are as follows: **Paul D. Brett,** West Coast, **Charles Franz,** Midwestern area, **Joseph Mathews,** New York, Baltimore, and Washington area, also assistant sales manager of the sheet and pillowcase division; **Harold J. Anderson,** New England. **Richard N. Stone,** controller, was made assistant treasurer. **Ray C. Pillsbury** was appointed general manager succeeding **Kenneth B. Cook** who resigned to devote his interest to Crown Mfg. Co.

According to a recent announcement, **Bruce S. Williams** has been appointed assistant to the president of Russell Manufacturing Co., Mid-

Mr. Williams

dletown, Conn. He formerly was manager of the southeast territory, belting division.

The Durene Association of America has elected as its president **Richard C. Thatcher,** president of Standard-Coosa-Thatcher Co. **Joseph B. Holt** of Aberfoyle Manufacturing Co. was elected vice-president and treasurer, and **A. C. Layton Newsom** was reappointed executive secretary.

Word has been received that **Oliver Iselin, Jr.,** of Iselin-Jefferson Co., Inc., is now secretary of Almardon Mills, Inc., Lonsdale, R. I., succeeding **Harrison A. Biggi. Donald J. Owler** is the new vice-president.

M. A. Bearden, formerly assistant treasurer of the Cliffside (N. C.) Mills, Inc., has been named general manager, with supervision of the plants at both Cliffside and Avondale.

George D. McConnell has been appointed first vice-president in charge of manufacturing in all plants of Munsingwear, Inc., Minneapolis, Minn. **Laurens D. Dawes** is the new treasurer.

Edward A. Werner, formerly vice-president, has been elected president of Colonial Mills, Inc., New York, N. Y. **Karl Robbins** was named chairman of the board of directors and **William P. Saunders** was elected executive vice-president. Other vice-presidents are **Murray Kramer, Joseph Jones,** and **Sam Kramer. Edgar Robbins** was named assistant treasurer.

Burlington Mills Corp., Greensboro, N. C., has announced the election of five new vice-presidents: **D. L. Gryder, Gen. James L. Frink, Robert A. Gilliam, W. Bailey Sellars** and **John Harden. Graham H. Anthony** was named a director of the company.

New officers of Caledonia Mills, Lumberton, N. C., have been named as follows: **George W. Walker,** president and treasurer; **Harold J. Starke,** New York, and **John F. Green,** Lum-

FAST ONE-MAN OPERATION

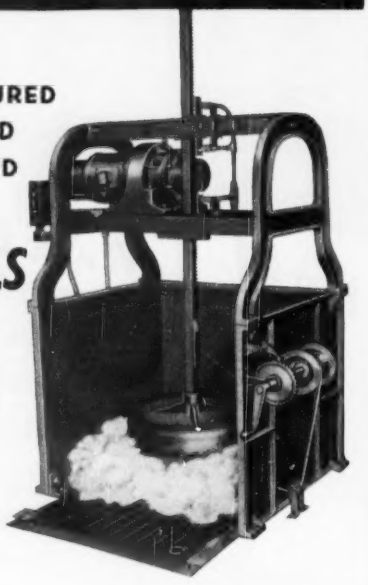
SARGENT'S *Automatic* BAGGING MACHINE

for

SCOURED
PULLED
GREASED
DYED

WOOLS

NOILS
and
WASTE



Compact, fully automatic, of proven efficiency, the SARGENT BAGGING MACHINE offers these advantages to the mill and warehouse owner:

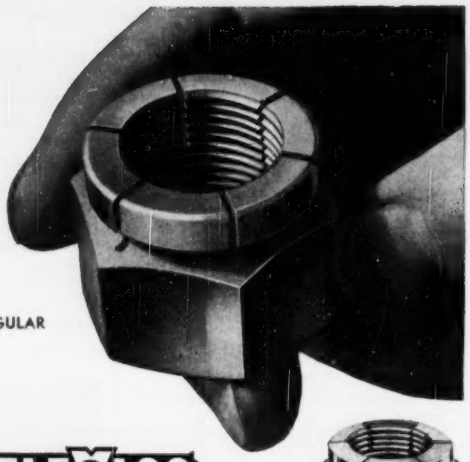
- One-man operation throughout
- Fingertip control at all times
- Insures uniform bulk and weight of all bags packed
- Handles up to 10 bags per hour—100 to 150 lbs. per bag depending upon the wool or material bagged
- The Sargent bagging process is safe as well as rapid
- Requires little floor space
- Constructed to require minimum maintenance

Write us for complete details.

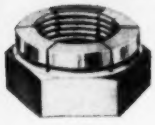
LARGEST MANUFACTURERS OF STOCK DRYING AND WOOL WASHING EQUIPMENT IN AMERICA

SINCE 1852

C. G. SARGENT'S SONS CORPORATION
Graniteville, Massachusetts, U.S.A.



REGULAR



THIN

FLEXLOC

ONE-PIECE SELF-LOCKING NUTS

...WON'T SHAKE LOOSE!
...ELIMINATE NUT TINKERING!
...REDUCE MAINTENANCE COSTS!

Every day we learn of more FLEXLOC Self-Locking Nuts being used in Industry because they are superior fasteners and reduce maintenance costs. Maintenance men are quick to see the value of a nut that the most chattering vibration won't budge, yet which can be removed easily when desired. And in addition, the strong, one-piece FLEXLOC has no extra parts to lose or forget.

So, why not try FLEXLOC Self-Locking Nuts for your maintenance? Find out for yourself how they eliminate "tinkering" with plain nuts and save valuable maintenance time.

Send for samples and our Catalog 619-A.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
MAY 8-12, 1950

SPS STANDARD PRESSED STEEL CO.
JENKINTOWN 34, PENNSYLVANIA

berton, vice-presidents; and **Henry H. Heinbockel**, New York, secretary.

Arthur F. Chace, formerly superintendent, has been made manager of Textron Puerto Rico, a cotton print cloth mill at Ponce, P. R. **H. H. Robbins** has succeeded Mr. Chace as superintendent.

Members of the Canadian Woolen & Knit Goods Manufacturers Association elected as their new president **Harold G. Smith** of Mohawk Mills, Ltd., Hamilton, Ont. **George H. Carr** of Julius Kayser & Co., Ltd., Sherbrooke, Que., was reelected vice-president of the association.

David L. McCollum, formerly with Pomona Mfg. Co., Greensboro, N. C., is now associated with Burlington Mills' New York office in the fabric development department.

Jacob L. Mosset succeeds **Joseph Slotter** as southwestern branch manager for the LaFrance Industries. His headquarters will be in Dallas, Texas.

By unanimous vote **C. Norris Raybold**, of Erwin Cotton Mills, Cooleemee, N. C., was elected president of the American Association of Textile Chemists and Colorists. Vice-presidents elected were **Arthur W. Etchells**, of Hellwig Dyeing Corp., Philadelphia, Pa., and **George O. Linberg**, of Monsanto Chemical Co., Boston, Mass.

At a recent meeting of the board of directors **Lester Martin** was elected president of the Consolidated Textile Co., Inc., New York, N. Y. Shepard H. Spies was named executive vice-president.

Albert Ruth was recently made executive vice-president of the New Bedford (Mass.) Knitting Co. **Harry G. Rousevell** was named treasurer and **Peter A. Green** assistant treasurer. The three men were formerly with the New Bedford Rayon Co.

Wright Bolton, associated with the Soule Mill, New Bedford, Mass., for the past nine years, has announced his resignation from that company.

Lewis E. Chittum has been elected treasurer and a director of the American Yarn & Processing Co., Mount Holly, N. C. **Frank H. McKinney** was promoted to the office of secretary. R. S. Dickson, president of the firm, also announced the resignation of **I. M. Goree** as secretary-treasurer and a board member.

The New York Quartermaster Procurement Agency has announced the appointment of **Brig. Gen. Leicher O. Grice** as commanding general of the Jeffersonville (Ind.) Quartermaster Depot.

William A. Karl (right), president of Firestone Textiles, is congratulated by **Harvey S. Firestone, Jr.**, chairman of the Firestone Tire and Rubber Co., as he celebrates his 30th anniversary with the company.

William A. Karl, President of Firestone Textiles, New Bedford, Mass., recently celebrated his 30th anniversary with the company.

In line with the new policy of Bates Fabrics, Inc., New York, N. Y., to place emphasis on new developments in synthetics, **Paul F. Brabazon** has been appointed to assist **Edmon G. Luke**, head of all rayon operations, and will have charge of finished synthetics. **Edgar B. Mooney**, formerly sheet department head, is now managing an enlarged sales promotion department with offices in Los An-

Mr. Brabazon

Mr. Riddell

ASK YOURSELF...

wouldn't many textile machine parts be BETTER if molded in PLASTICS ?

THE ANSWER...

Of course—Wide awake mills today realize plastics offer strength, toughness and flexibility as well as non-corrosive and non-rusting properties.

Color—in plastics gives better visibility of moving parts and insures quick identification.

Plastics—will out wear many old fashioned wood and metal parts.

Think it over, investigate the possibility of plastics in your plant.

ASK us about it — or better still have one of our field men call on you to discuss your individual problems.

PATENT BUTTON CO. OF TENNESSEE
P. O. Box 1271
KNOXVILLE, TENNESSEE

Broken Picks?

● The reduction of broken picks is one of the features of the Nash No. 79. Running quills through keeps them in perfect condition . . . assures clean, smooth quills at all times, free from sharp surface projections and burnished to a high, dry luster.

No harsh abrasive action is employed during the operation and the original finish coating of the quill remains intact. All dirt is removed from grooves and the resultant polish has a surface free from any deposit. Repeated polishing of quills through the Nash No. 79 will in no way damage the quills or reduce their life.

Write for complete descriptive literature.

We also manufacture Nash 88 and Nash 37 Automatic Refinishers for throwing bobbins.

NASH 79 AUTOMATIC QUILL POLISHER

For Refinishing Loom Bobbins

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J. M. NASH COMPANY

2368 N. 30TH STREET, MILWAUKEE 10, WISCONSIN

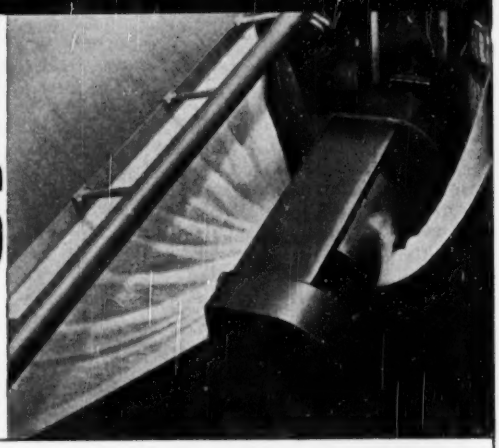
SPECIAL FINISHING MACHINES SINCE 1890 NASH

10.000.000 CARDING POINTS NEED PERFECT GRINDING ROLLS

CONSULT THE CARD-GRINDING SPECIALISTS

DRONSFIELD'S

TRAVERSE WHEEL GRINDER Nº 120



SOLE AGENTS FOR DRONSFIELD'S MACHINERY :-

JOHN HETHERINGTON & SONS INC.

BOSTON · MASS.

SOLID GRINDING ROLLER Nº 112

DRONSFIELD BROTHERS LTD · OLDHAM · ENGLAND

geles, Cal., and St. Louis, Mo. He has been replaced by **Charles F. Riddell.**

Robert T. Garrison succeeds Lawrence J. Parrish, deceased, as vice-president in charge of manufacturing of Cluett, Peabody & Co. Mr. Garrison has been with the firm since 1931.

Mr. Garrison

At a recent meeting of the board of directors of Dan River Mills, Inc., **W. W. Lufkin, Jr.,** was elected a vice-president. Mr. Lufkin will continue to serve as general sales manager.

HALLOWELL

Steel Collars

HALLOWELL Solid Steel Collar, functionally proportioned throughout . . . precision-machined so faces run perfectly true . . . are beautifully polished all over . . . yet they cost less than common cast iron collars. 3" bore and smaller are made from Solid Bar Stock. To make sure the collar won't shift on the shaft, they are fitted with the famous UNBRAKO Knurled Point Self-Locking Socket Set Screw—the set screw that won't shake loose when once tightened. HALLOWELL . . . a "buy word" in shaft collars . . . available in a full range of sizes for

IMMEDIATE DELIVERY

Write for name and address of your nearest HALLOWELL and UNBRAKO Industrial Distributors.

OVER 47 YEARS IN BUSINESS

STANDARD PRESSED STEEL CO.

JENKINTOWN 34, PENNSYLVANIA

Chicago • Detroit • St. Louis • San Francisco

Obituaries

John A. Law, 80, a retired textile manufacturer, of Hendersonville, N. C., died suddenly in Hartford, Conn., while visiting relatives. Mr. Law was a past president of the American Cotton Manufacturers Association and a member of the advisory board of The Cotton-Textile Institute.

Clyde C. Armstrong, 59, of Gastonia, N. C., died recently. Mr. Armstrong at the time of his death was secretary-treasurer of the Gastonia (N. C.) Combed Yarn Corporation, and also associated with Jewel Cotton Mills, Inc., Gastonia, Irene Mills, Inc., Taylorsville, N. C., and Gurney Mfg. Co., Prattville, Ala.

After a two-week illness, **Charles W. Strickland, Sr.,** 64, general traffic manager of Cone Mills Corp., Greensboro, N. C., died.

Louis P. Batson, vice-president, secretary, and co-owner of Batson Manufacturing Co., Greenville, S. C., died December 14.

E. W. Fairchild, 83, founder and vice-chairman of the Fairchild Publications, New York, N. Y., died on December 12 in his home at Glen Ridge, N. J.

On December 1 **Bernard R. Armour,** 58, died suddenly in New York. Mr. Armour was a prominent figure in the chemical industry and was president and director of a number of corporations. He was a member of the Board of Directors of the American Association of Textile Chemists & Colorists.

Professor Russell L. Brown, of Lowell (Mass.) Textile Institute, died December 13 at the age of 55 as a result of a plane crash.

Judge William Weldon Stark, 85, vice-president of Harmony Grove Mills, Commerce, Ga., and an official of the firm for 40 years, died recently.

Connected with the Pacific Mills for some years until his retirement in 1933, **Robert A. S. Reoch,** 82, died on December 13 in Methuen, Mass.

Cal H. Strickland, associated with Appleton Mills, Anderson, S. C., for 19 years, died recently at the age of 68.

Samuel Chadwick, 77, formerly associated with Ashley & Bailey Silk Co., died recently in Paterson, N. J.

Priced Right Built Right

"EXCEL"

Extra Quality Extra Value

Excel No. 2300

Look at These Features:

- 1/4" Hamptonite Fibre construction
- Slatted or solid wood or metal bottom.
- Heavy duty galvanized or Stainless Steel top rail.
- No center band to catch under ring rails.
- Casters *bolted* onto trucks.
- Securely riveted throughout with solid rivets.
- Finished with clear plastic or painted as desired.

Built to Specifications . . .
Prompt Delivery

EXCEL

TEXTILE SUPPLY CO.

"Excel Trucks Excel"

LINCOLNTON, NORTH CAROLINA

IN CARD CLOTHING, TOO... SHARP POINTS YIELD LONGER RUNS

Card production isn't a question of speed, but upon keeping cards running longer between regrindings . . . and that calls for clothing with smooth points that stay sharp.

Carders who use Wissco Hardened Point Clothing have found that it saves them hours of "smoothing up" and, by giving longer runs between grindings, it cuts grinding time up to 50%. That's because after this superior Wissco Clothing has been precision-set, it is ground to an accuracy of ½ of a thousandth of an inch, then hardened by a special Wissco process.

A trial run will show you why more and more mills are standardizing on Wissco Hardened Point Clothing. Write today for detailed information.

Sales Office and Plant: 56 Sterling St., Clinton, Mass.
Executive Office: 500 Fifth Avenue, New York 18, N. Y.
District Offices: Boston, Buffalo, Chicago, Detroit, Denver, New York, Philadelphia.
Pacific Coast: The California Wire Cloth Corporation, Oakland 6, Cal.

Wissco CARD AND NAPPER CLOTHING

FOR COTTON, RAYON, WOOL, WORSTED, ASBESTOS AND SPECIALTIES

CF&I

A Product of Wickwire Spencer Steel Division of The Colorado Fuel And Iron Corporation

New

Fluted Rolls

at savings up to

40%

NEW automatic machinery recently installed makes it possible for Southern Spindle and Flyer Co. to manufacture FLUTED ROLLS for spinning and flyer frames at LOWER costs. We pass these savings—up to 40%—on to you.

Compare our prices for all types of NEW fluted rolls with the cost of reworking OLD rolls. You'll be pleasantly surprised at the comparatively small difference in cost.

All of our new fluted rolls are made with screw necks. They're precision made of the highest grade steel and are held to close tolerances. They can be finished also with hard chrome plating.

PROMPT DELIVERIES AVAILABLE

- ***Write, wire or phone for further information***

50th ANNIVERSARY OF SERVICE TO THE TEXTILE INDUSTRY

Southern
SPINDLE & FLYER CO.
821 W. FIRST STREET
PHONE 2-1329 CHARLOTTE 1, N. C.

SUPPLIERS' NEWS

WHAT THEY ARE DOING

Cornelius Lucas, general manager and secretary of the **Hermas Machine Company**, Hawthorne, N. J., for thirty years, has announced his retirement. Succeeding Mr. Lucas as general manager is Harry S. Haney.

A loom lubrication division, the primary function of which is to render assistance to textile mills in the selection and application of loom lubricants, has been formed by the **New York & New Jersey Lubricant Co.** Carroll A. Campbell, former

Mr. Campbell

superintendent of Woodside Mills at Fountain Inn, Simpsonville, and Liberty, S. C., is head of the newly created division. His headquarters will be in Greenville, S. C.

The Bethayres Pa., plant of **H. W. Butterworth & Sons Co.** is being enlarged to consolidate all foundry and machine shop facilities, thus effecting increased production and better deliveries. The Providence (R. I.) plant has been closed, although sales offices are being maintained there under the direction of Wallace Taylor.

John L. Stickley, long associated with **William Whitman Co., Inc.,** in Charlotte, N. C., has organized his own general textile brokerage business, specializing in worsted, cotton, synthetic and blended yarns and wool tops in the South, with headquarters in the Commercial National Bank Building of Charlotte. Mr. Stickley will continue to represent the yarn production of the William Whitman Co. in the territories he had in the past.

Gulf Oil Corporation has organized a product development and product engineering section, with W. B. Shirk as director of industrial products engineering, according to a recent announcement. Mr. Shirk has been associated with the Gulf organization since 1932.

Union Special Machine Company, Chicago, Ill., has announced the organization of a west coast branch at 119 East Pico Boulevard, Los Angeles, Cal. William G. Booth is branch manager and is in charge of the entire Pacific Coast sales and service operations. Succeeding Mr. Booth as manager of the firm's product application department in Chicago is Lawrence M. Brown.

R. L. Van Alstyne, associated with **Fairbanks, Morse & Co.,** for about twenty-nine years, has been made manager of all of the firm's scale factories. His office will be in East Moline, Ill.

Succeeding John W. Littlefield, deceased, as southern representative of **Watson-Williams Manufacturing Co.,** Millbury, Mass., is Arthur J. Bahan. Mr. Bahan, who was formerly in the production department of the company, has offices at 810 Woodside Building, Greenville, S. C.

Mr. Bahan

The merger of the **United States Testing Company, Inc.,** Hoboken, N. J., and the **Esselen Research Corp.,** Boston, Mass., was recently announced. The Esselen Research Corp. became the Esselen Research Division of the United States Testing Co., Inc., under the direction of Dr. Gustavus J. Esselen, its founder.

Formerly associated with the United States Rubber Company in

DANDUX

BASKETS
HAMPERS
TRUCKS
HANDLING
and
SHIPPING
BAGS
WORK TABLE
COVERING
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LINERS
DOFF BASKETS

Write for Catalog No. 1-2

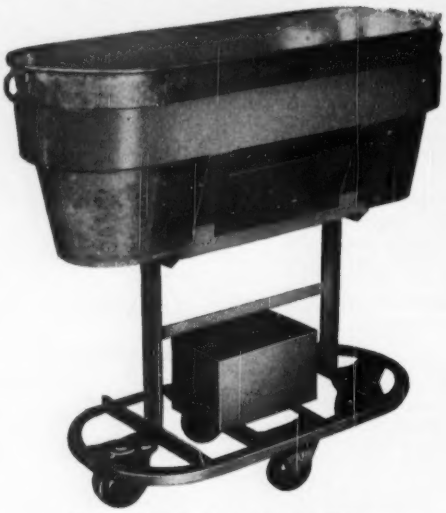
Finer Quality that means Greater Economy

C. R. DANIELS, INC.
DANIELS, MARYLAND

We are pleased to announce that we have been granted Patent No. 2492002

on our

BATTERY FILLER TRUCKS



Both Standard and Dan River Models

● NO Other Concern Is Licensed to Manufacture These Trucks

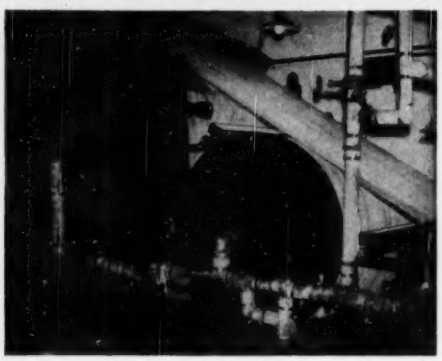
J. C. PADDOCK COMPANY

Manufacturers of Textile Trucks

Phone 3-5571 **Spartanburg, S. C.**

Representatives:

TEXTILE SPECIALTY CO. ..... Greensboro, N. C.
SAM E. MABRY ..... Spartanburg, S. C.
JOHN C. TURNER ..... Atlanta, Ga., Box 916
WM. R. FOX ..... Box 380, Providence, R. I.



RED-RAY BURNERS

installed on cotton slasher. Increased production. Improved warp.

Write for bulletins

RED-RAY MANUFACTURING COMPANY, INC.

455 W. 45TH STREET — NEW YORK 19, N. Y.

Dirty floors are costly!

THE KENT FAST CLEANING TEAM

Keeps Floors Clean • Keeps Profits Up

Clean floors mean less product spoilage, better appearance . . . improve sanitation! KENT Floor Machine scrubs, polishes, steel-wools . . . KENT Electric Mopper picks up dirty water, converts to dry use tool

Write for full information

CLEAN WITH **KENT** EQUIPMENT

The Kent Company, Inc. • 410 Canal St. • Rome, N. Y.

its mechanical goods division, Ralph Hanes is now director of advertising and sales promotion of the **Dodge Manufacturing Corp.**, Mishawaka, Ind., manufacturers of power transmission machinery.

Oliver Landis of Charlotte, N. C., is the exclusive agent for **Benjamin Booth Co.**, Philadelphia, Pa., manufacturers of card clothing, to the cotton mills in North and South Carolina and Virginia. Norman E. Aderhold contacts all other mills in those states, and also mills in Georgia, Alabama, and eastern Tennessee. J. W. Davis of Columbus, Ga., is exclusive agent for the cotton mills in Georgia, Alabama, eastern Tennessee and Mississippi.

Thomas H. Johnson, formerly with the **American Viscose Corporation**, resigned to become a consultant to the knitting industry in general, and the warp knitting industry in particular. His successor is Wirt L. Thompson, Jr., who was his assistant.

Jesse A. Fraser has succeeded Joseph A. King, resigned, as manager of the Providence, R. I., branch office of **Stein, Hall & Co., Inc.**, New York, N. Y. Roswell D. Armstrong of the Boston office has been made New England manager in addition to his other duties.

Firestone Plastics Co., Pottstown, Pa., has appointed Daniel M. Magee selling agent for Velon yarn. Mr.

Mr. Magee

Magee will have his headquarters at the company's New York office in the Empire State Building.

Another garnett reclothing plant has been opened in Wakefield, Mass., by the **James Hunter Machine Company**, North Adams, Mass., making a total of seven such plants in operation. The latest plant will operate as Hunter-Wakefield, Inc.

R. C. Aycock, former president of Aycock Hosiery Mills, South Pittsburg, Tenn., has been made southern representative of the packaging division of **E. W. Twitchell, Inc.**, with headquarters at 1124 James Building, Chattanooga, Tenn. Mr. Aycock will handle the firm's "Beauty-Pak" textile packagings in Alabama, Georgia, Tennessee, and Western Kentucky.

The Brush Development Corp., Cleveland, Ohio, has been assigned by the **Institute of Textile Technology** for the production and marketing of its uniformity meter, to be known as a uniformity analyzer hereafter.

William N. Given, former sales and advertising manager of the Webb Mfg. Co., jobbers and converters, has been appointed general sales manager of the **Kaumagraph Co.**, Wilmington, Del.

The following changes in the sales organization of **Standard Pressed Steel Co.**, Jenkintown, Pa., have been announced: George A. Gade, former district manager of the Detroit office

Manager G. T. B. Reports:

"High-Clearance Aluminum Alloy UP-RIGHT SCAFFOLDS provide the only way to get over looms and spinning frames"

"Man-hour savings paid for our first four scaffolds in less than 6 months . . . as a result we've added 41 more!" *adds G. T. B.*

Mobile 10 ft. span or 6 ft. span scaffolds, adjustable to desired height, take only 1 minute to erect. Superintendents and master mechanics report that *savings on even single installations or maintenance jobs more than pay for Up-Right Scaffolds!*

Use this most modern means for work on ceilings, ducts, overhead machinery, sprinkler systems and lighting fixtures. Stronger than structural steel yet one-third the weight. No wrenches, wing nuts, bolts or loose parts.

Write for Descriptive Circular

UP-RIGHT SCAFFOLDS

DEPT. 131 • 1013 PARDEE STREET • BERKELEY, CALIF.

Sales Offices: Atlanta, Boston, New York and Other Principal Cities • Factories: Berkeley, Calif. and Teterboro, N. J.

THE WETTER YOUR PLANT EQUIPMENT AND WALLS THE MORE YOU NEED

DAMP-TEX ENAMEL

Proved Fungus Resistant by FUNGUS TEST

PRESERVES AND BEAUTIFIES DINGY WET WALLS AND EQUIPMENT

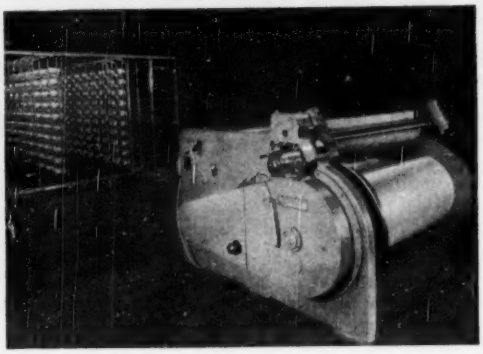
Dark, dingy walls cut down efficiency Rusty, neglected equipment increases depreciation costs. Rot, bacteria and fungus play havoc generally. The Damp-Tex system was created for the plant where the presence of moisture, heat and other unusual conditions hinders proper surface maintenance. Over 4,000 plants have discovered its superiorities. Write for our trial offer "Z"

Proved Lactic Acid Resistant by ACID TEST

STEELCOTE MFG. CO. • ST. LOUIS, MO.

Canadian Manufacturer: Standard Paint & Varnish Co., Windsor, Canada

Meeting the Test of Actual Mill Operation



THE NEW SIPP-EASTWOOD ELECTRICALLY CONTROLLED

HIGH SPEED WARPER

—the speed of the machine is limited only by the yarn in mills where only the most efficient equipment is tolerated. It builds beams up to 36 inches in diameter, 54¼ inches or wider between heads, with practically no vibration because of smoothly applied power and extra heavy construction

FEATURES THAT ARE OUTSTANDING:

1. Electrical control of warp speed.
2. Electrical indication of speed at all times.
3. Pushbutton controls throughout.
4. Static eliminator.
5. Motor-mounted magnetic brakes.
6. Magnetically operated hydraulic brakes for auxiliary braking of beam, measuring roll and pressure roll, and to hold the beam at a standstill.
7. Separate hydraulic system for handling beams in and out.
8. AC-DC drive.

Ask for all the facts about this splendid warper.

SIPP-EASTWOOD CORPORATION

45 Keen Street **Paterson, New Jersey**

DOMESTIC AGENTS:

S. FRED TOLL
2128 Green St.
Charlotte 1, N. C.

J. S. FALLOW & CO.
New Bedford, Mass.

and warehouse, is now regional sales manager in charge of Mid-West territories, and will retain his headquarters in Detroit; Francis J. Kinsella, former sales representative in the Detroit area, has succeeded Mr. Gade; David J. Hurford, former Cincinnati area district manager, has been named special representative in the West Coast area; William C. Harper, former representative in the New England area, has moved to the Cincinnati post; and A. Clayton Graham has replaced Mr. Harper in the New England territory.

Burlington Engineering Co., Graham, N. C., has named **F. W. Warrington Co.,** Charlotte, N. C., as sales representative in six southern states for their line of stainless dye becks, washers and allied dyeing and finishing equipment.

J. B. Rutter, vice-president of **Monsanto Chemical Co.,** St. Louis 4, Mo., and general manager of its Merrimac Division, has announced his retirement. Mr. Rutter intends to devote his time to industrial consultant service, and has been retained by Monsanto in this capacity.

Norman Wonnacott, vice-president and general sales manager of **Willcox & Gibbs Sewing Machine Co.,** New York, has recently completed an extensive visit to the Willcox & Gibbs Sewing Machine Co., Ltd., in London, England, of which he is a member of the board of directors. He also visited some of the branch offices located on the British Isles and on the Continent.

Zimmerman Associates, chemists and engineers, Guilford College, N. C. have announced that with the installation of additional equipment their new active softener for textile fibers, known as Zavel, can be produced at a rate of 468,000 pounds per month. This is in contrast to the previous capacity of 21,000 pounds per month.

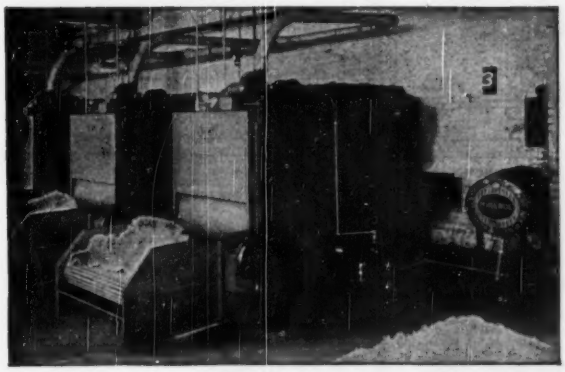
Construction of a two-story research building, to be located near Venice, Ohio, has been announced by **The Procter & Gamble Company** of Cincinnati, Ohio.

Interchemical Corporation has announced the appointment of Henry C. Hoffman as technical representative for the Textile Colors Division with headquarters at Rock Hill, S. C. Mr. Hartman was formerly with the Hartsville Print & Dye Works, the Clearwater Finishing Co., and Santee Print Works.

E. F. Houghton & Co., Philadelphia, Pa., has expanded its southern division with the following appointments: F. P. Hunt has been transferred from the Mississippi-Louisiana territory to the section including Georgia, Florida, southern Alabama and will make his headquarters in Atlanta, Ga.; J. G. Reese, formerly in the New Orleans section, has moved his headquarters to Chattanooga, Tenn., servicing accounts in northern Alabama, Eastern Tennessee and northern Georgia; A. N. Jackson will represent the company in the central and eastern sections of North and South Carolina, working from the Charlotte office.

David I. McCready, formerly associated with Somers, Fitler & Todd Co., has joined the sales staff of **Graton & Knight Co.,** Worcester, Mass. Mr. McCready will cover the Western Pennsylvania, West Virginia and Virginia territory and will make his headquarters in Pittsburgh. Elliott C. Paddock, former general sales manager of Corbin Screw Division of

MINEROL FIRST and FOREMOST CONDITIONING AGENT for Textile Fibres.



● **MINEROL** is a prepared agent for conditioning textile fibres..a systematic Process of Spraying Natural and Dyed Raw Stock. • **MINEROL** helps to separate long fibres from the short. It saves good *fibres* and prevents waste. It makes fibres more supple..more pliable. • **MINEROL** provides *control* of conditions caused by static electricity. It protects the cards and preserves the wire. • **MINEROL** prevents Dust and Fly..safeguarding health and insuring better working conditions. • **MINEROL**..as a conditioner is more urgently in demand thru the increased use of staple Cut Rayon and its varied combinations with cotton, wool and other fibres,

BRETON MINEROL PROCESS

BORNE SCRYMSER COMPANY

Originators of the BRETON MINEROL PROCESS for CONDITIONING FIBRE

ELIZABETH, N. J. *Established 1874* CHARLOTTE, N. C.

NEW ENGLAND REPRESENTATIVES
A. M. KNIGHT, West Yarmouth, Mass. W. M. DYNES, West Springfield, Mass. S. T. DOUGLAS, JR, Westwood, Mass.

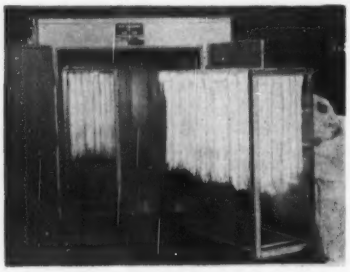
SOUTHERN REPRESENTATIVES
W. E. SMITH, Charlotte, N. C. JOHN FERGUSON, LaGrange, Ga. CHARLES KELLEY, Charlotte, N. C.

Series 13 of typical "H-W" CONDITIONER applications

BIJOU HOSIERY MILLS, INC.

reports large increase in perfects . . . also increased production on seamers and loopers with new "H-W" CONDITIONER.

The new "H-W" CONDITIONER installed in Bijou Hosiery Mills, Inc., Denver, Pa., conditions and dries the stockings automatically in one operation. Where used to condition 15 denier monofilament nylon before seaming and looping, perfects have been increased as much as 15 percent through the elimination of fisheyes and snagging. Seaming is speeded up and mending reduced to a minimum.



"H-W" CONDITIONER for Nylon Hosiery in Bijou Hosiery Mill, Denver, Pa.

●

New "H-W" CONDITIONER for Hosiery application pays for itself in short time . . . one user has written off entire cost of machine in four weeks' operation.

●

OVER 30 "H-W" CONDITIONERS FOR HOSIERY APPLICATIONS HAVE BEEN PURCHASED BY HOSIERY MILLS SINCE APRIL 1949

Trade-Mark Reg. U. S. Pat. Off.

New Bulletin H1-3 on request

The Industrial Dryer Corporation
STAMFORD, CONN.

it takes GOOD BEAMS to make good warps!

PROBLEM: ORDINARY BEAMS WON'T HANDLE THE PRESSURES OF NYLON AND RUBBER YARNS!

solution . . .

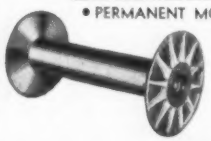
MILTON NYLON & RUBBER TRICOT BEAM

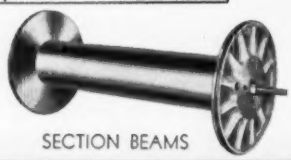
• FORGED HEADS
• RIGID BARRELS

Tested and proven under actual operating conditions, here is Milton's forged head beam designed especially to withstand extreme pressures encountered when warping tremendous yardages of monofilament; fine denier, low turn nylon; and rubber yarns! Heat-treated, aluminum alloy heads and barrels permanently joined with continuous heliarc welds. Write for complete information!

MILTON LIGHT METAL BEAMS are the result of years of close collaboration with mill production men . . .

• PERMANENT MOLD HEAD TRICOT BEAMS





SECTION BEAMS

MILTON MACHINE WORKS, Inc.
DESIGNERS — ENGINEERS — MANUFACTURERS
MILTON, PENNA.

American Hardware Corp., New Britain, Conn., has been appointed to the newly created position of vice-president in charge of sales by Graton & Knight.

Meredith, Simmons & Co., Ltd., Montreal, Canada, has announced the change of its name to **National Adhesives (Canada) Ltd.**

Arthur L. Anderson, for fourteen years a member of the staff of the American Institute of Laundering, has been appointed coordinator of textile and laundry testing and research of **American Conditioning House, Inc.**, Boston, Mass. Mr. Anderson will initially specialize in the development of specific services for mills, detergent manufacturers, and department stores relating to laundry problems.

Westinghouse Electric Corporation's Industrial Control Division, Buffalo, N. Y., has announced the appointment of F. B. Taugher as manager of engineering.

Paul M. Arnall has been appointed vice-president and general manager of **The Lunkenheimer Co.**, Cincinnati, Ohio.

Hyster Company, Portland, Ore., has announced that it has given exclusive distribution of its trucks, cranes, and industrial truck attachments in the southern part of North Carolina, all of South Carolina, and most of Georgia to Wrenn Bros., of Charlotte, N. C. and Atlanta, Ga.

Lowell (Mass.) Textile Institute has announced the award of the **Owens-Corning Fiberglass Corp.** scholarship to Arthur P. Miller, class of 1951. The scholarship carries full tuition and expenses for the recipient's junior and senior years, plus the opportunity to work summers in either of the donor's two plants.

The **Jenkins Reneedling Co.**, Gastonia, N. C., has a new machine which can reneedle six books for yarn combing machines in one minute, as contrasted with 2½ minutes per book when done by hand.

David M. Coleman, formerly with the Process Study Group, has been promoted to the sales development department of the **Hooker Electrochemical Company**, Niagara Falls, N. Y. Mr. Coleman will handle technical correspondence for all Hooker chemicals.

WHAT THE

TEXTILE MILLS

ARE DOING

West Point (Ga.) Mfg. Co. has announced plans for a new one-story and basement office building, to be erected at its Riverdale Mills in Riverview, Alabama.

Peerless Woolen Mills, Inc., Rossville, Ga., plans construction of additions to the weaving and finishing departments.

The Arlington and Monomac (Mass.) mills of **William Whitman Co., Inc.,** are planning conversion of their power plant from coal to oil fuel, with facilities provided for the storage of about 380,000 gallons of oil.

A new factory branch in Minneapolis, Minn., has been constructed by **Alexander Smith & Sons Carpet Co.,** Yonkers, N. Y.

Arista Mills Co., Winston-Salem, N. C., is erecting a one-story office building at the mill, reported to cost about $35,000.

General contract has been let for construction of additions to the mill of **Victor Balata & Textile Belting Co., Inc.,** Easton, Pa., at a cost of approximately $250,000, with equipment.

Marven Looms, Inc., Warwick, R. I., has been incorporated with capital of 500 shares of stock, no par value, to manufacture rayon fabrics. One of the incorporators and representatives is E. M. Bood, 915 Hospital Trust Bldg., Providence, R. I.

C. F. Haynsworth, Jr. is president of the new **Industrial Cotton Mills, Inc.,** Greenville, S. C., which has recently been chartered with capital of 10 shares of stock, no par value, to manufacture cotton products for industrial service.

As part of its expansion program, **Schneider Mills, Inc.,** Taylorsville, N. C., has begun installing new equipment, including about 84 new looms. Approximately 5000 new throwing spindles will be put into operation a little later.

John Zimmerman & Sons, Inc., Philadelphia, Pa., is planning a one-

Speed Up Your Old Equipment with New Load-Floating Colson Casters

Rolling equipment that doesn't roll easily reduces efficiency and profits in your mill. There are 1458 standard Colson casters—many designed especially for Textile mills. They roll easily over all floors, swivel freely, are rust-resistant. Many models have thread guards. Colson also manufactures a wide range of trucks for the Textile Industry—hand trucks, platform trucks, box trucks, drum and barrel trucks and special devices. Write us or consult your phone book for the local Colson office.

Model 3-427-16 with thread guards, designed especially for the Textile Industry

Write Today For Free 68 Page Catalog

THE COLSON CORPORATION
ELYRIA, OHIO
CASTERS • • LIFT JACK SYSTEMS • • INDUSTRIAL TRUCKS

TON-TEX BELTING

insures more production and the exact precision needed in

TEXTILE PLANTS

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

LOOM HARNESS STRAPPING
MECHANICAL SPECIALTIES
TRANSMISSION BELTING
CONVEYOR BELTING
VE-E-ZY V-BELTING
LAPLESS ENDLESS BELTS

TON-TEX
Reg. U.S. Pat. Off.

TON-TEX CORPORATION
24 YEARS SERVING INDUSTRY

16 West 61st St. New York 23, N. Y.
GREENSBORO, N. C. 217 Jefferson Bldg.
BOSTON 10, MASS. 122 Pearl St.

story addition to its plant, to cost approximately $100,000, with equipment.

Elastex, Inc., Johnston, R. I., has been chartered with capital of $21,000 to manufacture textile elastic specialties.

Mill Bridge Mills, Inc., West Warwick, R. I., has been incorporated with capital of 100 shares of stock, no par value, to manufacture rayon fabrics.

Mayfair Mills, Inc. is planning extensions and improvements in its Arcadia, S. C. Mill No. 1.

William Skinner and Sons, Holyoke, Mass., has completed construction of a two-story, windowless plant addition to house approximately 200 looms. Featuring point control of humidity and temperature, the annex is expected to be in full production this month.

As part of its modernization program, **Textron, Inc.** has ordered 480 new looms, also new warpers, slashers, and winders, for its Suncook rayon weaving mill at Allenstown, N. H.

A filament rayon weaving plant, to cost between $3,500,000 and $4,000,000, is to be constructed for **Textron, Inc.,** at Williamston, S. C. The mill will have 960 looms and will be a complete operation, with warping, winding, slashing, and weaving.

Bruck Mills, Ltd., Montreal, Que., Canada, has announced the appointment of two new vice-presidents. David Abelson has been made vice-president in charge of sales and Harry M. Adelstein is in charge of merchandising.

Monument Mills, Inc., Housatonic, Mass., is planning a $700,000 expansion program, which will include new looms for the weave shop, a new dye house, and slasher and looper-cutter-tenter frame.

The Brandon Division of **Abney Mills,** Greenville, S. C., has announced that it will discontinue the manufacture of cotton duck goods and change to filament rayon fabrics.

The Liberty Mutual Insurance Companies' Accident Prevention award has been presented to the employees of the Sample Department, **Burlington Mills Corp.,** Greensboro, N. C. This department has a record of having operated three years without a lost time accident.

With the completion of the mezzanine floor addition to the **Deering, Milliken** Excelsior Mill No. 4 at Pendleton, S. C., space will be provided for the entire Deering, Milliken research laboratory and administrative units to move from Greenwich, Conn.

A new waterproofing and flameproofing plant, located in Waxahachi, Tex., and acquired last August by the **Westboyd Chemical Company,** is now equipped for full production.

The Fair Lawn, N. J. plant of **Cedar Cliff Weaving Corp.** has been leased to M. Lasman. It will henceforth be operated as the **Lasman Textile Weaving Co.**

Land, buildings, machinery, and equipment of the **Franklin (Mass.) Yarn Company** have been sold to Samuel Ketover of the National Wadding Co. of Franklin. The mill will operate under a new name.

Garfield Worsted Mills, Inc., Scranton, Pa., organized about two years ago by Botany Mills, now has 75 worsted looms in operation.

The Boston, Mass. office of **Warwick Mills** has been moved to 178 Atlantic Ave.

The donation to the North Carolina Vocational Textile School, Belmont, N. C., of a 40" Model X Draper loom is the second to be made by the **Burlington Mills Corp.,** Greensboro, N. C., in the past year to the school.

Thermo Mills, Inc., Hudson, N. Y., has been acquired by McDowell Associates, New York City, who plan to retain a part of the plant for warehousing, and rebuilding used textile machinery. The Allen Street plant has been resold to Star Woolen Co., Cohoes, N. Y., and it will be utilized as a wool scouring mill.

It Takes Lifting Equipment to Prevent Accidents

The Lewis Hydraulic Lifting Trucks are the answer to many of your problems. We manufacture these trucks for handling warps of different lengths, high speed warper beams, cloth rolls in cloth rooms and finishing plants. Write for our catalogue.

J. W. LEWIS & COMPANY

P. O. BOX 36 **SPARTANBURG, S. C.**

Dial 3-6561

AS A MAN BENDS... SO BENDS the new

LAWLOR Model 12-W

SCRUBBER, WAX-POLISHER

The adjustable handle makes it possible to clean under counters, machines, desks, lockers, etc. Operator can raise or lower it to any angle within an 80 degree arc.
Equipped with set of 4 sectional brushes or solid round brush. AC or DC. Rubber tired ball-bearing wheels. Comes with 50 feet of rubber covered cable.

LAWLOR Model 20-D

It's just the machine for large areas. It scrubs and squeegees floors. One operator does both jobs with this remarkable two-in-one machine. Clean water is fed from one tank upon the soaped floor, the 19" diameter revolving brush scrubs it thoroughly. Then a rubber squeegee mops up the dirty water which is vacuum pumped into a second tank.
The Model 20-D is only 22" wide and can be operated around machines and equipment. AC or DC.

MOP WRINGERS

Quality built of all steel with perforated rolls. Foot lever operation. Made for one or two pails.

MOPPING TANKS

Made of heavy galvanized steel with welded seams. Two compartments, each with shut-off. Foot-pressure wringers. 30 or 60-gallon capacity.

All Lawlor Equipment is sold and serviced by local Janitor Supply Houses

Write for Catalog of complete Lawlor line

S. C. LAWLOR CO.

Makers of Quality Floor Equipment for 50 Years

121 N. Aberdeen St., Chicago 7, Ill.

New Equipment and Materials

(Continued from page 194)

These high pressure bucket pumps are designed for delivering lubricant to circuits of Centro-Matic lubricant injectors installed on one or more machines not equipped with pump, or where machines are not grouped, making it impractical to use a centralized pumping unit.

Lincoln Engineering Company, Natural Bridge Ave., St. Louis 20, Missouri. (B-122).

Emulsion Stabilizer

A product that should find many useful applications in emulsions, finishes, as a solubilizer in dyeing, for stain removal and prevention (particularly of iron), and as an antioxidant, is Teac-90. It is essentially an organic salt containing, in addition, a small amount of mixed alkylolamines and water.

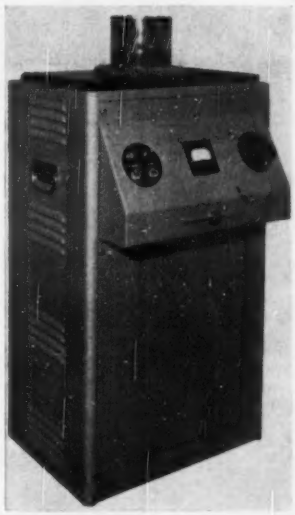
Teac-90 is hygroscopic and is miscible with water. It is soluble in many alcohols, and non-toxic, having a slight agreeable odor.

Process Chemical Specialties, P. O. Box 345, Beverly, Mass. (B-136).

Ultrasonic Generator for Industrial Research

A new ultrasonic generator, providing a simple and practical method for studying the effect of ultrasonic energy on various materials and processes, is for use in research lab-

Ultrasonic generator (GE).



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you'll save on floor maintenance with Selig's

FLOROSEAL

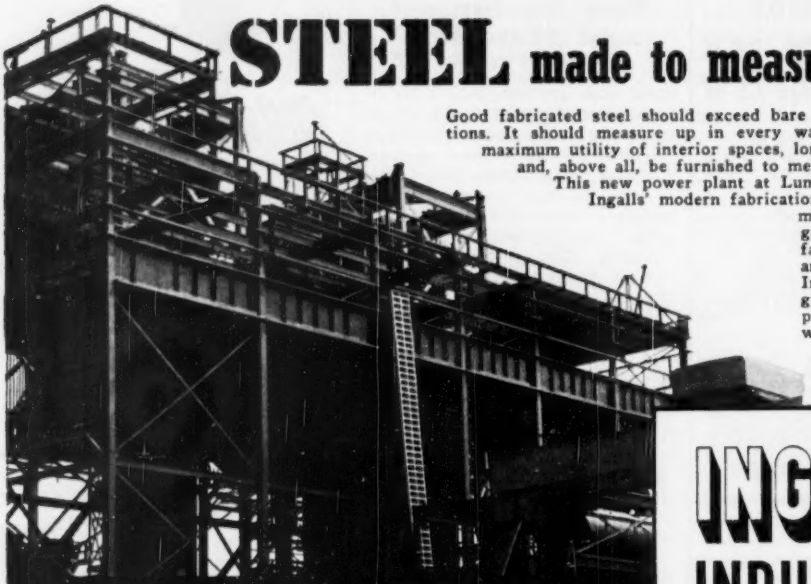
For economy and greater efficiency Selig's "dry maintenance" method using Floroseal and Florotone is unequalled. By this method you get cleaner,, better, longer wearing, safer and easier to maintain floors for fewer maintenance man hours.

Write for complete details on the modern method of floor maintenance . . . it's yours without obligation.

The SELIG COMPANY
Manufacturing Chemists since 1896
ATLANTA • GEORGIA

OFFICES & WAREHOUSES . DALLAS . HOUSTON . NEW ORLEANS

STEEL made to measure...UP!



Good fabricated steel should exceed bare mechanical specifications. It should measure up in every way—clean appearance, maximum utility of interior spaces, longest life expectancy, and, above all, be furnished to meet erection schedules. This new power plant at Lumberton, N. C., typifies Ingalls' modern fabrication methods because it meets all standards of good workmanship. For fabricated steelwork of any type, figure with Ingalls. Complete engineering staff, five plants. Inquiries are welcome.

Contractors & Engineers
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STRUCTURAL STEEL • STAINLESS STEEL
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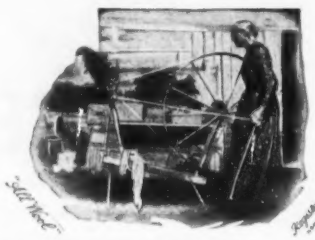


KNOXALL

ROLLER, SLASHER AND CLEARER CLOTH
ENDLESS BLANKETS RAYON SLASHER JACKETS
ENDLESS REVOLVING CLEARERS

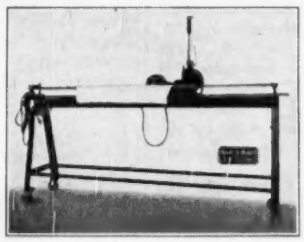
EDWARD H. BEST & CO.

Est. 1888 BOSTON MASS. Inc. 1901

ATLANTA, GA.
W. C. HAMES
188 Pinecrest Ave., Decatur, Ga.
Dearborn 5874

NEW YORK
H. W. CURTIS
735 W. Crescent Ave., Allendale, N. J.
Allendale 1-3821

GREENVILLE, S. C.
WILLIAM J. MOORE
1 Pendleton Street
7848



Motor driven Railway Sewing Machine fitted with "Coronation" Chain Stitch Head. Also made with Merrow Head.

"SUPREME" BUTT SEAM PORTABLE SEWING MACHINE
fitted with Merrow Head complete with Motor Drive. No exposed gears.

"CORONATION" Piece-end SEWING MACHINE
Sews light or heavy fabrics wet or dry.

SEWS WHERE OTHERS FAIL

Thread cannot wind around the Looper.
Three lengths of stitch.
Starts sewing at the very edge of cloth.
Also made with Motor Drive.

BIRCH BROTHERS, Inc.

Harold W. Birch Clifford W. Birch Clifford W. Birch, Jr.
SOMERVILLE 43, MASS.
Dyeing and Finishing Machinery
and Mill Sewing Machines
Southern Representative
JOHN C. COSBY, Greenville, S. C.

oratories, including those of industrial organizations, hospitals, etc.

The generator converts high-frequency electrical power into high-frequency mechanical vibrations in the form of sound waves pitched considerably higher than the range of human hearing. It permits a wide operating range by providing four vibration frequencies: 300, 500, 750, and 1000 kc.

General Electric Co., Special Products Div., Schenectady 5, N. Y. (B-137).

Gasoline-Powered Inter-Plant Truck

Truck-Man, a gasoline-powered inter-plant truck, is designed for economical horizontal movement of materials. The three available models are applicable to most industrial uses, for palletized, skidded or manually handled loads.

Operator ridden, Truck-Man is powered by a 4.4 hp Wisconsin ABN air-cooled engine.

Truck-Man Div., The Knickerbocker Co., Jackson, Mich. (B-138).

Surface Pyrometer Universally Adaptable

An accurate and universally adaptable instrument for determining surface and sub-surface temperatures features a large 4" direct reading indicator mounted in a rubber cushioned housing, thus offering great ease in reading as well as long, durable service.

The Pyrometer Instrument Co., Inc., Bergenfield, N. J. (B-139).

Non-Toxic Wood Preservative

"Non-Tox" is the name applied to a new non-toxic wood preservative, which in recent tests, has exhibited unusual effectiveness against mold, decay, mildew, moisture, and helps to prevent warpage and shrinkage. Application varies with the product although dip-treatment is the simplest and most economical.

Brooklyn Varnish Mfg. Co., 50 Jay St., Brooklyn, N. Y. (B-140).

Standardized Stainless Steel Heat Exchanger

An all-stainless steel heat exchanger is now being manufactured on a mass production basis. According to the manufacturer, immediate delivery and low unit cost of this new model are made possible by complete standardization and stocking of all component parts.

Ross Heater & Mfg. Co., Inc., 1407 West Ave., Buffalo 13, N. Y. (B-141).

Cabinet Keeps Blueprints in Excellent Condition

The Draw-In-Dex cabinet files blueprints, tracings, maps, X-rays, samples, etc., safely and conveniently without wrinkles, creases or curled edges. The cabinet accommodates 1,000 prints. Each print hangs smoothly.

Empire Development Corp., 52 Broadway, New York 4, N. Y. (B-142).

Sludge Pump Features Crosshead Guide Assembly

A modified design of plunger sludge pumps results in greatly increased pumping efficiency and cuts maintenance "down time." This exclusive feature, the Crosshead Guide Assembly, consists of a steel crosshead guide rod, rigidly secured to each plunger; the guide rod travels through bronze guide bearings in a vertical plane with the plunger. The bronze guide bearings are securely mounted on and supported by the vertical stanchion of the pump base; so the crosshead guide is located perpendicular to the eccentric motion of the connecting rod.

Ralph B. Carter Co., 210 Atlantic St., Hackensack, N. J. (B-148).

Single-Phase Capacitor Motor

A new integral-horsepower capacitor motor for use wherever power supply demands single-phase operation has been announced.

In ratings from ½ to 5 hp, these high torque motors are available in two types: Type KCS, capacitor-start, and Type KCR, capacitor-run.

General Electric Co., Schenectady 5, N. Y. (B-145).

Fluorescent Sun Lamp

A new fluorescent sun lamp, capable of bringing indoors the beneficial ultraviolet rays of natural sunshine, has been introduced. Homes, schools, offices, factories, can use these lamps in standard fixtures.

Lamp Division, Westinghouse Electric Corp., Bloomfield, N. J. (B-144).

JACOBS
LOOM
NECESSITIES
Free Write now to Dept. 1-2 for free utility knife with Plyweld handle.
SOUTHERN Division Charlotte, N. C.
The Bullard Clark Company
E. H. JACOBS
NORTHERN Division Danielson, Conn.

Commercial Factoring by Banks Recommended

A recommendation that banks expand their operations to include commercial factoring, was made recently by Dunwoody-O'Bryan & Co., Inc., commercial factors in Chicago, after a study of 428 firms in the fields of shoes, textiles (infant and children's wear, work clothing, knit goods), furniture, mattresses and bedsprings, chemicals, food (manufacturing and wholesale), and hardware and tools. It is believed that the financing problems of many small and medium-sized firms would be met thereby, and avoid increased government financing of business.

According to the report, firms whose annual sales volume ranges from $100,000 to $5,000,000, have the most difficulty in getting finances when they want to take on a new line, improve a plant, or increase working capital for expanding sales purposes. The largest need is said to be term loans, with a maturity of one to five years.

More Information on Vat Dye Process

On page 72 of the January 1950 issue of TEXTILE INDUSTRIES was an announcement of the fact that successful commercial runs of acetate fabrics in vat colors are being made at the Shamrock Textile Processing Co., in Paterson, N. J., a subsidiary holding the first license granted by Vat-Craft Corp. of New York for commercial use of its process for the application of vat dyes to fabrics photochemically by use of a newly discovered radio-active source material, UA-1.

Test runs have now been made in the vat dyeing of nylon dobbies, orlon dobbies, eight-ounce cotton twill, acetate and rayon tissue faille types, all rayon gabardine in both dress and shirting weights, one denier poplin shirting, a multi-filament crepe blend of acetate and nylon, an all-acetate bridal satin and a fine silk crepe, according to Vat-Craft. With this announcement, additional details regarding the process were made known.

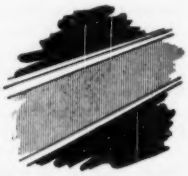
In the Vat-Craft process, fibers are coated or impregnated with soluble materials, which, upon exposure to radiation, are converted to insoluble colored pigments. These become an integral part of the fabric and penetrate completely through the fiber.

The process to be economically feasible can proceed at varying rates of speed depending upon the fabric being dyed. In order to accomplish this, addition agents are included in the dye solution which coats the fabric. The addition agent acts similarly to a radio amplifier which takes small amounts of electrical energy and increases and converts this energy to a state that is easily perceived.

This catalytic addition agent is

A Knotless, High Tensile, High Speed Machine Sewing Thread
Thomaston
PEDIGREE
MACHINE THREAD
Available in 10s and 12s in 3, 4, 5, and 6 ply—16s and 20s in 3 and 4 ply. Put up on 2½ lb. or 16½ lb. knotless cones.
A high quality thread for your bag-closing operation. Also particularly adaptable for use in WOOLEN MILLS for tacking thread and COTTON MILLS and BLEACHERIES for seaming thread.
SPECIFY • PEDIGREE
Product of
THOMASTON MILLS
Thomaston, Ga.
"ATLAS" and "CHAMPION"
Medium Grade Knotless Threads also available—in 10s and 12s in 3, 4, 5 and 6-ply. Both on 2½ lb. Knotless cones.
also manufacturers of numbered duck, cover duck, cover cloth, hose and belt duck, and chafer fabric
THOMASTON Thread

Salvage Your Rusty Reeds



The LOW-COST Oakite Way

Reduce reed-replacement costs by derusting your reeds with Oakite Compound No. 36.

This mildly acidic compound thoroughly removes light rust deposits. At the same time it provides a protective phosphate coating that serves to ward off rust attack.

Send for the FREE Oakite "66" Digest. You'll find it a most valuable guide for saving money on this and 65 other maintenance cleaning jobs. Oakite Products, Inc., 26C Thames Street, New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING
OAKITE
MATERIALS • METHODS • SERVICE
Technical Service Representatives in Principal Cities of U. S. & Canada

manufactured from radio-active source materials under a license from the United States Atomic Energy Commission.

It has been found that exceedingly small amounts of this compound, when added to the solution coated on the fabric, will increase the efficiency of outside radiation many thousandfold to a point where color can be precipitated on almost any material at high rates of speed.

The Vat-Craft machine is composed of four basic units. The first unit, the Padye, consists of a shallow pan and several nip-rollers. As the fabric goes through this first unit it is soaked with the dye solution which also contains the radio active source material, UA-1. After the fabric has been saturated the nip-rollers squeeze out the excess dye.

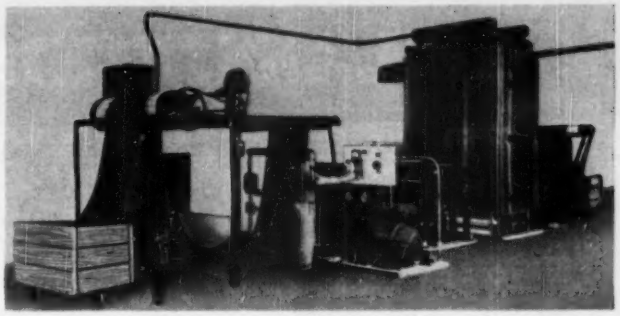
The second unit through which the fabric passes is Quetsch Number 1. Here the fabric goes through a second shallow pan containing a photo-sensitizing solution which leaves the fabric coated similar to an undeveloped camera film. Again the fabric goes through nip-rollers which wring out the excess solution.

The third unit in the process is the Development Chamber. It is about 15 feet high, six feet wide and four feet thick. It contains two vertical rows of fifteen powerful lights each. These two tiers of lights face each other about a foot apart and each tier has a screen of 96% silica glass in front of it. The fabric passes down through this development chamber between these two screens of silica glass, at which point it is developed like film.

The 30 lights produce 3750 watts each for a total of 112,500 watts. The silica glass screens permit filtering of proper light rays to develop the fabric's color and yet control the temperature of the area through which the fabric passes to between 90 and 100 degrees.

When the fabric leaves the bottom of this development chamber, the color is completely set.

It then goes through the fourth unit of the process which is Quetsch Number 2. This is a fresh water bath which removes any lint, excess solution or particles of dust or dirt. The fabric is wrung out on more nip-rollers and goes into a hamper or onto a spool. It is then ready for normal textile finishing.



Range for photochemical application of vat dyes to fabrics by use of a recently discovered radio-active source material.

Between the several units of the machine there are tension-controlling devices which allow the fabric to be run at whatever tension is desired, or if necessary, completely without tension. The compensating gates which perform this function are important due to the high speed at which the process operates.

The machine, about forty feet long, six feet wide and fifteen feet high, manned by three or four workers, produces vat dyed fabrics at the rate of 125 yards a minute or 150,000 yards in two ten-hour shifts.

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

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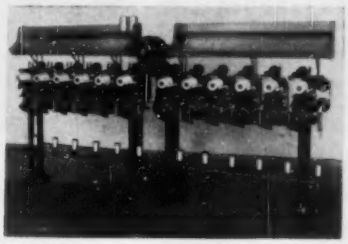

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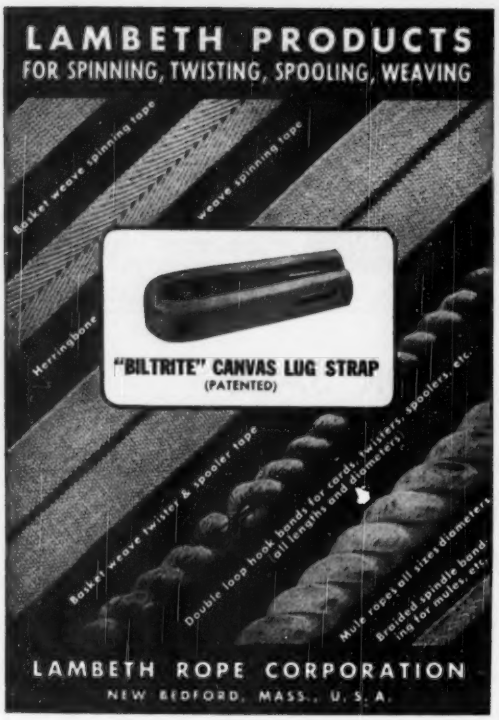
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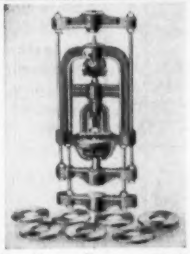

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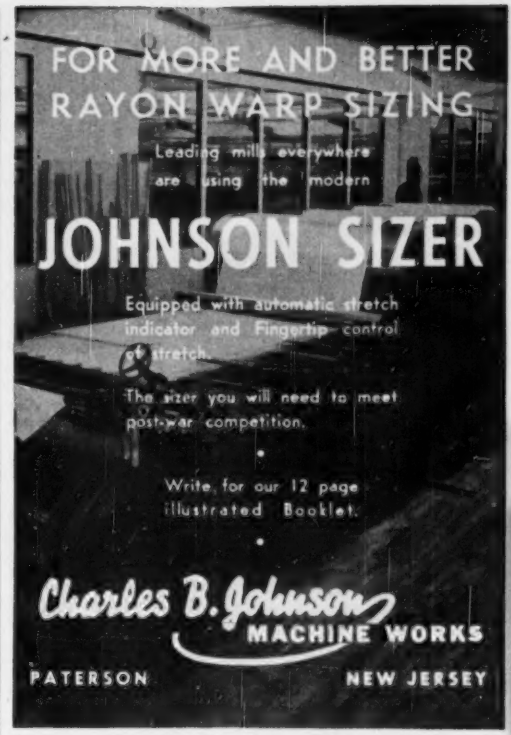
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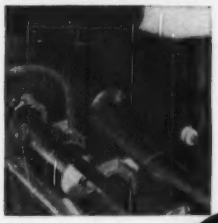

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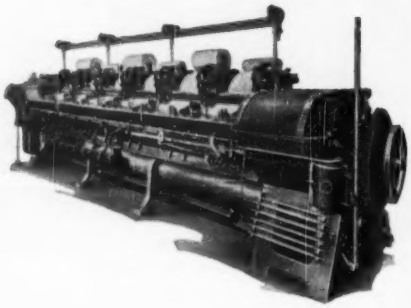

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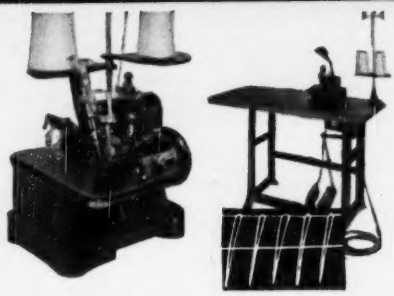

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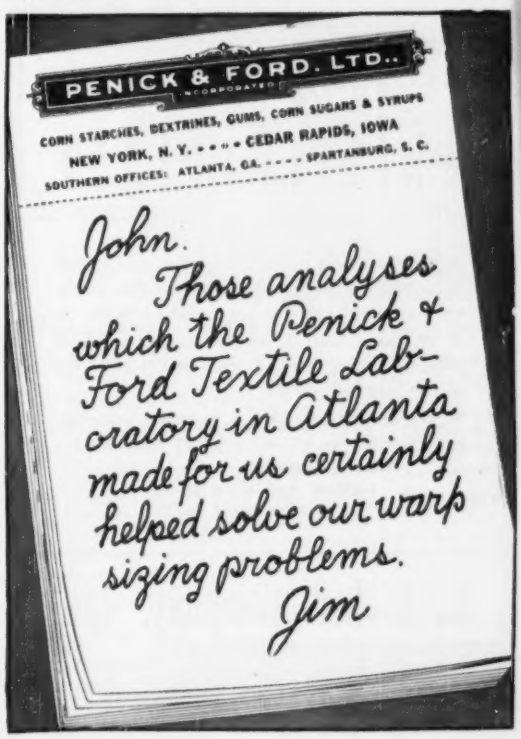
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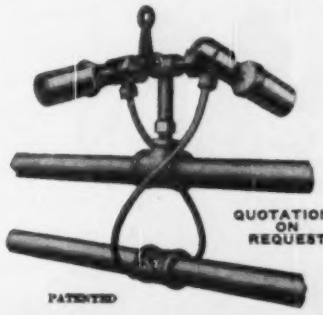

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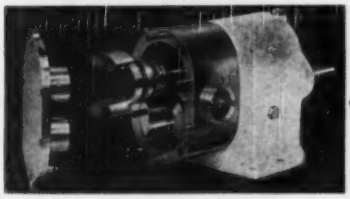

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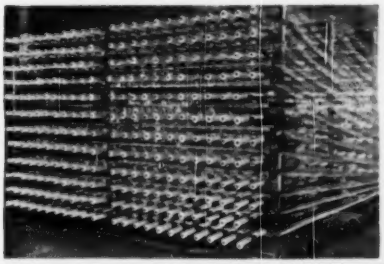
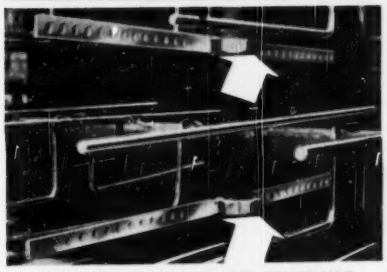
McBRIDE Plush Type and Heavy Duty Creels bring you many new cost cutting features

HEAVY DUTY CREELS for large packages and heavy yarns are designed for weaving operations, often completely replacing warping. To speed production by permitting loading away from the loom these creels can be castor mounted.



THIS PLUSH TYPE CREEL used for weaving pile fabrics of cotton, rayon, mohair, etc., is all-metal—all-welded—for maximum strength. In addition to strength and rigidity (note special stiffening truss at bottom), this construction permits full circulation of air and also by allowing more light between creels assists the creeler in locating tubes which are about to run out.



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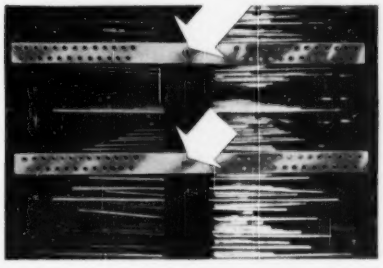

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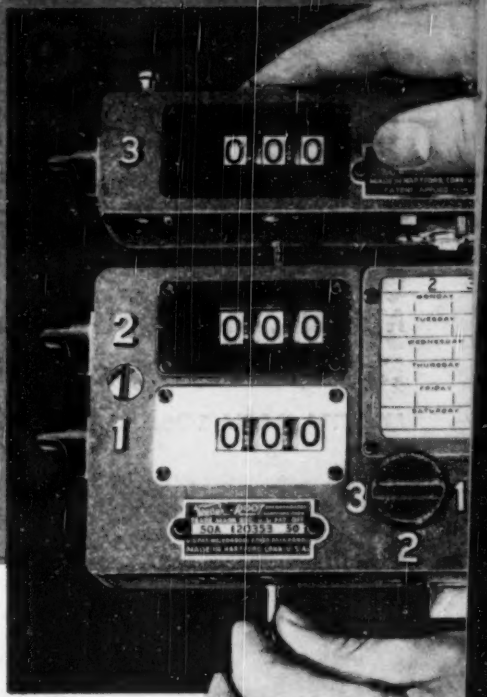

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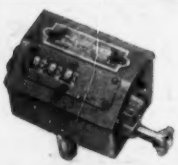

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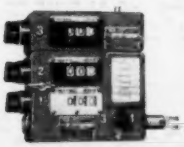

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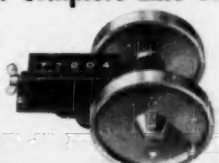

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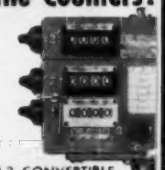

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